# THE <br> <br> OXYRHYNCHUS PAPYRI 

 <br> <br> OXYRHYNCHUS PAPYRI}

VOLUME LXV
edited with translations and notes by
M. W. HASLAM
A. JONES
F. MALTOMINI
M. L. WEST
and
W. E. H. COCKLE R.A.COLES
D. MONTSERRAT
J. D. THOMAS

WITH contributions by
J. L. CALVO MARTÍNEZ D. GOLOMO R. HÜBNER
D. HUGHES N. LITINAS K. LUCHNER
U. SCHLAG T. SCHMIDT P. SGHUBERT
I. A. SPARKS J. SPOONER

Graeco-Roman Memoirs, No. 85

PUBLISHED FOR
THE BRITISH ACADEMY By the
EGYPT EXPLORATION SOGIETY
doughty mews, london wain apg
I 998
printed in great britain
By THE CHARLESWORTH GROUP, HUDDERSFIELD
AND PUBLISHED FOR

## THE BRITISH ACADEMY

ISSN ozo6-9222

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\text { ISBN o } 85698 \text { г } 303
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## PREFACE

The first part of this volume continues our publication of theological texts from volume LXIV (4401-4 and 4406 are now assigned the numbers $\mathfrak{p}_{101}=5$ ). The major part of this section comprises four new papyri of St. John's Gospel (4445-8) edited by Dr. W. E. H. Cockle: all codices, all assignable to the third century AD and therefore among the earliest surviving witnesses to the text.

In Part II Professor Haslam edits a group of fragmentary and challenging commentary texts, recognisably on Homer and Herodotus. Two geographical texts were originally edited by the late David Hughes as part of a doctoral thesis supervised by Sir Eric Turner; one of these comes from Strabo, an author rarely represented by papyri. The further very fragmentary literary pieces presented by Professor West in papyri. The further very fragmentary literary pieces presented by Professor West in
Part III represent the largest group of texts with musical notation ever to be published at one time.

Part IV is devoted to magic, astrology and related matters. Professor Maltomini has edited the extensive and extraordinarily complex two-sided magical text 4468, while Professor Jones follows his work on our astronomical papyri (LXI 4133-4300) with seven astrological pieces concerned with omens and the like, $\mathbf{4 4 7 3}$ in a striking hand and 4477 a substantial part of a vast ( I 6 -column?) tabulated horoscope from the fifth century.

Part V brings together sixteen assorted documents that relate especially to the state's control of the individual (registrations of birth and death for example) and to our growing knowledge of the prosopography of central and local government officials. Notable for its contributions to matters of diplomatic and law is the extensive petition 4481, edited by Professor Thomas. A number of the texts in this section derive from the doctoral theses of N. Litinas, D. Montserrat and J. Spooner, written at University College London under the supervision of Professor Maehler.

The literary indexes have been compiled by Haslam, West, Maltomini and Jones; Goles has prepared the documentary index and co-ordinated the whole.

We are again grateful to the Rev. Dr. David Parker for his advice on the New Testament texts 4445-9

With this volume we are more than usually indebted to the staff of The Charlesworth Group; their skill especially in handling the problems set by the musical texts 4461-7, awkward even by the standards of our awkward material, enormously simplified the volume's preparation.

January, $199^{\circ}$
R. A. GOLES
P.J. PARSONS
J. R. REA
J. D. THOMA

General Editors

## CONTENTS

Refac ..... v
table of Papyri ..... ixList of Plates
Numbers and Platesxi
Note on the Method of Publication and Abbreviations ..... xii
rexts
THEOLOGICAL TEXTS (4442-4449) ..... ${ }^{1}$II. LITERARY TEXTS (4450-4460)II. LITERARY TEXTS $(\mathbf{4 4 5 0 - 4 4 6 0})$
III. TEXTS WITH MUSICAL NOTATION $(\mathbf{4 4 6 1 - 4 4 6 7 )}$
IV. MAGIC, RELIGION AND ASTROLOGY (4468-4477) ..... 103
V. DOCUMENTARY TEXTS (4478-4493)

## INDEXES

I. Literary Texts
II. Magic, Religion and Astrology
III. Rulers and Regnal Years
IV. Consuls
V. Months
VI. Dates
VII. Personal Names
VIII. Geographical
(a) Countries, Nomes, Toparqhies, Crties, etc
(b) Villages, etc.
(c) Miscellaneous
IX. Religion
X. Official and Military Terms and Titles
XI. Professions, Trades, and Oggupations
XII. Measures
(a) Weights and Measures
(b) Money
XIII. Taxes
XIV. General Index of Words
XV. Corregtions to Published Texts

## TABLE OF PAPYRI

I. THEOLOGICAL TEXTS

| 4442 | LXX, Exodus xx 10-17, 18-22 | DC | Early third century | I |
| :---: | :---: | :---: | :---: | :---: |
| 4443 | LXX, Esther Ei6-9.3 | KL | Late first/early second century | 4 |
| 4444 | LXX, Sapientia Salomonis iv $\mathrm{I}_{7-\mathrm{V}} \mathrm{I}$ | IAS/RAC | Fourth century | 8 |
| 4445 | NT Gospel of John i 29-35, $40-46$ | WEHC | Third century | 10 |
| 4446 | NT Gospel of John xvii I-2, 11 | WEHC | Third century | 14 |
| 4447 | NT Gospel of John xvii 23-24, xviii 1 -5 | WEHC | Third century | 16 |
| 4448 | NT Gospel of John xxi 18-20, 23-25 | WEHC | Third century | 19 |
| 4449 | NT Epistle of James iii I3-iv 4, iv $9^{-\mathrm{V}}$ I | RH | Third/fourth century | 20 |

## II. LITERARY TEXTS

| $\mathbf{4 4 5 0}$ | Lyric verse | MWH | Third century | 26 |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{4 4 5 1}$ | Commentary on Iliad i | MWH | First century BC | 27 |
| $\mathbf{4 4 5 2}$ | Commentary on Iliad xix | MWH | Second century | 29 |
| $\mathbf{4 4 5 3}$ | Commentary on the Odyssey | MWH | First century | 45 |
| $\mathbf{4 4 5 4}$ | Commentary on Anacreon? | MWH | Second century | 50 |
| $\mathbf{4 4 5 5}$ | Commentary on Herodotus, Bk. v | MWH | Third century | 55 |
| $\mathbf{4 4 5 6}$ | Commentary? | MWH | Second century | 59 |
| $\mathbf{4 4 5 7}$ | Notes on scholarship | MWH | Third century | 61 |
| $\mathbf{4 4 5 8}$ | Geography | DH | Third century | 66 |
| $\mathbf{4 4 5 9}$ | Strabo, Geographica ii $5 \cdot 20-\mathbf{2 4}$ | DH | Late second/third | 7 I |
|  |  |  | century |  |
| $\mathbf{4 4 6 0}$ | Mythological compendium? | TS | Early third century? | 75 |

III. TEXTS WITH MUSICAL NOTATION

| 4461 | Excerpts with musical notation | MLW | Second century | 83 |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{4 4 6 2}$ | Fragments with musical notation | MLW | Second century | 86 |
| $\mathbf{4 4 6 3}$ | Text with musical notation | MLW | Second/third century | 89 |
| $\mathbf{4 4 6 4}$ | Excerpts with musical notation | MLW | Second/third century | 93 |
| $\mathbf{4 4 6 5}$ | Excerpts with musical notation | MLW | Second/third century | 95 |
| $\mathbf{4 4 6 6}$ | Text with musical notation | MLW | Third/fourth century | 98 |
| $\mathbf{4 4 6 7}$ | Excerpts with musical notation | MLW | Third century | 99 |

IV. MAGIC, RELIGION AND ASTROLOGY

| 4468 | Magic | FM | Late first century | 103 |
| :---: | :---: | :---: | :---: | :---: |
| 4469 | Letter of Abgar to Jesus (amulet) | FM | Fifth century | 122 |
| 4470 | Oracular question | DM | Second/third century | 129 |
| 4471 | Omens from the rising of Sirius | AJ | Late second/early third century | 130 |
| 4472 | Astrological forecasts | AJ | Second century | 133 |
| 4473 | Astrological forecasts of the rise of the Nile | AJ | Second/third century | 136 |
| 4474 | On the Egyptian Year | AJ | Late second/early third century | 140 |
| 4475 | General astrology | AJ | Second century | $14^{2}$ |
| 4476 | On the Qualities of the Zodiacal Signs | AJ | Late second/early third century | 143 |
| 4477 | Horoscope in tabular form, AD 430 | AJ | After 430 | 146 |

V. DOCUMENTARY TEXTS

| 4478 | Notification of death | DM | ${ }_{5} 5$ December 74 | 152 |
| :---: | :---: | :---: | :---: | :---: |
| 4479 | Notification of death | JS | 29 January 179 | 154 |
| 4480 | Notification of death | DM | 26 February 3 ${ }^{11}$ | ${ }^{5} 56$ |
| 4481 | Authenticated copy of a petition to the prefect | JDT | 11-26 March 179 | ${ }^{1} 59$ |
| 4482 | Reports of receipts of requisitioned wheat | RAC | February 182 | r 69 |
| 4483 | Letter of Elis to Carpus | AJ/PS | 194 | 174 |
| 4484 | Petition to the prefect | RAC | April-May 197 | ${ }^{1} 75$ |
| 4485 | Order to arrest | JS | Second century | 176 |
| 4486 | Orders to arrest | DM | Late second/midthird century | 178 |
| 4487 | Declarations of surety | RAC | Third century | 179 |
| 4488 | Declaration of uninundated land | RAC | c. $244 / 5$ | 181 |
| 4489 | Application to register a child | JLCM | 5 August 297 | 182 |
| 4490 |  | NL | 22 (?) July 299 | 185 |
| 4491 | Sworn declaration | NL | 9 May 307 | 187 |
| 4492 | Petition of a dike supervisor | RAC | c. $311 / 2$ | 189 |
| 4493 | Letter to Thaesis | US/JDT | Fourth century | 191 |

JLCM = J. L. Calvo Martínez
WEHC = W. E. H. Cockle
$\mathrm{RAC}=\mathrm{R} . \mathrm{A}$. Coles
$\mathrm{DC}=\mathrm{D}$. Colomo
MWH = M. W. Haslam
RH $=$ R. Hübner
$\mathrm{DH}=\mathrm{D}$. Hughes
$A J=A . J o n e s$ $\mathrm{NL}=\mathrm{N}$. Litinas $\mathrm{KL}=\mathrm{K}$. Luchner FM $=$ F. Maltomini $\mathrm{DM}=\mathrm{D}$. Montserrat
US = U. Schlag
$\mathrm{TS}=\mathrm{T} . \mathrm{Schmidt}$
$\mathrm{PS}=\mathrm{P}$. Schubert IAS $=$ I. A. Sparks JS = J. Spooner JS $=$ J. Spooner
JDT $=$ J. D. Thomas MLW = M. L. West

LIST OF PLATES

| I. $\mathbf{4 4 4 3}$ part | XI. 4457, 4460 |
| :---: | :---: |
| II. 4442, 4444, 4449 | XII. 4461-2 |
| III. 4442, 4444, 4449 | XIII. 4463-5 |
| IV. 4445-8 | XIV. 4466-7, 4469 |
| V. 4445-8 | XV. 4468 |
| VI. 4450, 4453 | XVI. 4468 |
| VII. 4451, 4456, 4458 | XVII. 4473 part |
| VIII. 4452 | XVIII. 4477 |
| IX. 4454-5 | XIX. 4481 |
| X. 4459 | XX. 4470, 4483, 4485 |

NUMBERS AND PLATES

| $\mathbf{4 4 4 2}$ | II, III | $\mathbf{4 4 5 9}$ | X |
| :--- | :--- | :--- | :--- |
| $\mathbf{4 4 4 3}$ part | I | $\mathbf{4 4 6 0}$ | XI |
| $\mathbf{4 4 4 4}$ | II, III | $\mathbf{4 4 6 1}$ | XII |
| $\mathbf{4 4 4 5}$ | IV, V | $\mathbf{4 4 6 2}$ | XII |
| $\mathbf{4 4 4 6}$ | IV, V | $\mathbf{4 4 6 3}$ | XIII |
| $\mathbf{4 4 4 7}$ | IV, V | $\mathbf{4 4 6 4}$ | XIII |
| $\mathbf{4 4 4 8}$ | IV, V | $\mathbf{4 4 6 5}$ | XIII |
| $\mathbf{4 4 4 9}$ | II, III | $\mathbf{4 4 6 6}$ | XIV |
| $\mathbf{4 4 5 0}$ | VI | $\mathbf{4 4 6 7}$ | XIV |
| $\mathbf{4 4 5 1}$ | VII | $\mathbf{4 4 6 8}$ | XV, XVI |
| $\mathbf{4 4 5 2}$ | VIII | $\mathbf{4 4 6 9}$ | XIV |
| $\mathbf{4 4 5 3}$ | VI | $\mathbf{4 4 7 0}$ | XX |
| $\mathbf{4 4 5 4}$ | IX | $\mathbf{4 4 7 3}$ part | XVII |
| $\mathbf{4 4 5 5}$ | IX | $\mathbf{4 4 7 7}$ | XVIII |
| $\mathbf{4 4 5 6}$ | VII | $\mathbf{4 4 8 1}$ | XIX |
| $\mathbf{4 4 5 7}$ | XI | $\mathbf{4 4 8 3}$ | XX |
| $\mathbf{4 4 5 8}$ | VII | $\mathbf{4 4 8 5}$ | XX |
|  |  |  |  |

## NOTE ON THE METHOD OF

## PUBLICATION AND ABBREVIATIONS

The basis of the method is the Leiden system of punctuation, see $C E 7$ (r932) 262-9. It may be summarized as follows:
$a \beta \gamma \quad$ The letters are doubtful, either because of damage or because they are The letters are doubtful, e
otherwise difficult to read
Approximately three letters remain unread by the edito
$a \beta \gamma]$ The letters are lost, but restored from a parallel or by conjecture
....] Approximately three letters are lost
() Round brackets indicate the resolution of an abbreviation or a symbol, e.g. ( $\dot{\alpha} \rho \tau \dot{\beta} \beta \eta)$ represents the symbol -, cтp(a (aך óc) represents the e.g. $(\alpha \rho \tau \alpha \beta \eta)$ rep
abbreviation $c \tau \rho S$
[ $\alpha \beta \gamma$ ] The letters are deleted in the papyrus
$\alpha \beta \gamma^{\prime} \quad$ The letters are added above the line
$\langle a \beta \gamma\rangle \quad$ The letters are added by the editor
$\{a \beta \gamma\} \quad$ The letters are regarded as mistaken and rejected by the editor
Heavy arabic numerals refer to papyri printed in the volumes of The Oxyrhynchus Papyri.

The abbreviations used are in the main identical with those in J. F. Oates et al., Checklist of Editions of Greek Papyri and Ostraca, 4th edition (BASP Suppl. No. 7, 1992). It is hoped that any new ones will be self-explanatory.

## I. THEOLOGICAL TEXTS

4442. lxx, Exodus 20.10-17, 18-22

102/I I (b)
$5.7 \times 15.5 \mathrm{~cm}$
Early third century
Fragment from the upper outer corner of a leaf of a papyrus codex with the remains of twenty lines on each side; less than a half of the original line length has been preserved for the first fifteen and only a few characters from the last five. Seven lines have been lost at the foot; the leaf would have contained 27 lines each side, with an average 22 letters per line. If we calculate from the useful word count in the TLG Canon, Exodus would have required around i95 pages, on the basis of one column per page and a normal text.

The calculated written area would be $9 \times 18.7 \mathrm{~cm}$. Given that the outer side margin was at least 2 cm wide and assuming a minimum width of I cm for the lost inner side margin, the resulting leaf width (if single column) would be at least 12 cm . Damage to the upper margin and loss of the lower one prevents our calculating the height.

There are no accents, breathings or iota adscript. Diaeresis occurs in $\rightarrow 6$ and 19 . A dicolon and blank space coincide with the paragraph end (verse 21) in $\rightarrow I 6$. The men sacrum $\overline{\theta c}=\theta \epsilon o ́ c$ occurs in $\rightarrow I \mathrm{I}$ and I 6 , and we restore it and $\overline{\kappa c}=\kappa v ́ \rho \iota o c$ elsewhere.

Written in a good-sized formal majuscule, upright and basically bilinear, apart from a number of letters- $\iota, v, \varphi$-whose upright tends to protrude below the baseline. The script is a hybrid, broadly resembling the Biblical majuscule style but with details influenced by the severe style. There are some parallels with the more sloping III 406 (Pl. I), discussed by G. Cavallo, Ricerche pp. 29-30: here the balance is reversed, i.e. 406 is rather a severe style with Biblical majuscule influence. As a good quality manuscript, 4442 reveals a competent, professional scribe, who attempts to keep an even right edge to the column by reducing the size of letters towards the end of the line, while he tends to enlarge the characters at the beginning of the line (see in particular $\rightarrow 4 \zeta$, II $v, I 2 \varphi$ and $18 a$ ), perhaps following a tendency typical of early Christian papyri as borrowing from a documentary practice; cf. GMAW ${ }^{2}, 7$ and C. H. Roberts, Manuscript, Society and Belief in Early Christian Egypt (London, 1979), 16 (who mentions P Chester Beatty VI, a codex containing Numbers and Deuteronomy, assigned to the late second or early third century by Hunt).

4442 is the only papyrological witness of this section of LXX, Exodus. The text, collated with the edition of J. W. Wevers (Göttingen, 1991), agrees mainly with the text transmitted by the majority of witnesses. The most relevant feature is the agreement with $B$ and a few others in $\downarrow_{15}$ - 6 in preserving a different order of the Commandments, rather than following (as do most of our OT MSS) the ordering found in the NT. In addition to that, the papyrus shares with B and a few other witnesses another variant in $\rightarrow 8$.

## $\pi] a \nu \kappa \tau \eta \nu[o c]$

［cov кає о $\pi \rho \circ с \eta \lambda]$ vтос о $\pi \alpha \rho \circ \iota$
$[\kappa \omega \nu \in \nu \subset 0 \iota \epsilon \nu \gamma \alpha \rho] \epsilon \xi \eta \mu \epsilon \rho \alpha \iota c$
20：11
$[\epsilon \pi o \not \eta c \epsilon \nu \overline{K c} \tau o] \nu$ ovpavov
$[\kappa \alpha \iota \tau \eta \nu \gamma \eta \nu \kappa \alpha] \iota \tau \eta \nu \theta \alpha$
$[\lambda \alpha c c \alpha \nu \kappa \alpha \iota \pi \alpha \nu \tau] \alpha \tau \alpha \in \nu \alpha v$
［тоьс каь катє $\pi \alpha]$ بсєу $\tau \eta \eta \mu \epsilon$
$[\rho a \tau \eta є \beta \delta о \mu \eta \delta] \iota a$ точто єvдо
$[\gamma \eta \subset \in \nu \overline{\kappa c} \tau \eta \nu \eta] \mu \in \rho \alpha \nu \tau \eta \nu$
$[\epsilon \beta \delta о \mu \eta \nu \kappa \alpha \iota \quad \eta \gamma i] \alpha \subset \epsilon \nu$ аv $\overline{\eta \nu}$
$[\tau \iota \mu \alpha \tau o \nu \pi \alpha \tau \epsilon] \rho \alpha \operatorname{cov}$ каь $\tau \eta$ ？
$[\mu \eta \tau \epsilon \rho a \operatorname{cov} \iota \nu \alpha \epsilon v] \operatorname{co\iota } \gamma \epsilon \nu \eta$
$[\tau \alpha \iota$ кає $\iota \alpha \mu \alpha]$ крохролıос
$[\gamma \epsilon \nu \eta \in \pi \iota \tau \eta \subset \gamma] \eta \subset \tau \eta \subset$ a $\gamma \alpha \theta \eta[c]$
$[\eta \subset \overline{\kappa c}$ o $\overline{\theta c} \operatorname{cov} \delta \iota \delta \omega c \iota] \nu$ coı ọv $\mu o \iota$ $[\chi \epsilon v c \epsilon ⿺ 廴$ ov $\kappa \lambda \epsilon \psi] \epsilon \iota$ ov фоvєv ［сєıс ov $\psi є v \delta о \mu \alpha \rho \tau v \rho \eta с]$ єє८
［ $\kappa \alpha \tau \alpha ~ \tau o v \pi \lambda \eta c \iota o v \operatorname{cov}] \mu \alpha \rho \tau v$ $[\rho \iota \alpha \nu \psi \in v \delta \eta$ ovк $\epsilon \pi \iota \theta] v[\mu] \eta$
［сєוс $\tau \eta \nu$ үvvaıка тоv］$\pi \lambda \eta$
［o］$\lambda \alpha o c \epsilon \omega \rho[\alpha \tau \eta \nu \phi \omega \nu \eta \nu \kappa \alpha \iota]$
$\tau \alpha c \lambda \alpha \mu \pi[\alpha \delta a c \kappa \alpha \iota \tau \eta \nu \phi \omega \nu \eta \nu]$

گov фоß $\quad[\theta \epsilon \nu \tau \epsilon c \delta \epsilon \pi \alpha c$ о $\lambda \alpha o c]$ $\epsilon \subset \tau \eta<a v \mu[\alpha \kappa \rho \circ \theta \epsilon v \kappa \alpha \iota \epsilon \iota \pi a v]$
$\pi \rho \circ \subset \mu \omega \ddot{v}[\subset \eta \nu \lambda a \lambda \eta<o \nu$ сv $\eta \mu \nu \nu]$
каı $\mu \eta \lambda_{\alpha}[\lambda \epsilon \iota \tau \omega \pi \rho о с \quad \eta \mu а с о \quad \theta c]$
$\mu \eta \alpha \pi o \theta \alpha[\nu \omega \mu \in \nu \kappa \alpha \iota \lambda \epsilon \gamma \epsilon \iota]$
20：20
${ }^{10}$
$\kappa \in \nu$ vov $\pi \epsilon[$［甲асаı v $\mu a c \pi \alpha \rho \epsilon \gamma \epsilon]$ $\nu \eta \theta \eta$ o $\overline{\theta c} o[\pi \omega c a \nu \gamma \epsilon \nu \eta \tau \alpha \iota o]$ $\phi о \beta o c a v \tau[o v \in v v \mu \tau v \quad v a \mu \eta]$ $\alpha \mu \alpha \rho \tau[\alpha] \varphi[\eta \tau \epsilon \epsilon \iota \subset \tau \eta \kappa \epsilon \iota \delta \epsilon]$
o 入аос $\mu \alpha \kappa \rho[о \theta \epsilon v \mu \omega v \subset \eta \subset \delta \in \epsilon \iota \subset]$

$\overline{\theta c}: ~ \epsilon \iota \pi \epsilon v[\delta \epsilon \overline{K c} \pi \rho o c ~ \mu \omega v \subset \eta \nu]$
$\tau \alpha \delta \epsilon[$［єрєєс $\tau \omega$ оьк $\omega$ ıак $\omega \beta$ каı］ $\alpha v[a \gamma \gamma \epsilon \lambda \lambda \epsilon \iota<$ тoוc vıoוc ıсра $\lambda \lambda]$ $\ddot{\mu} \mu \epsilon[\iota \subset ~ \epsilon \omega \rho а к а \tau \epsilon$ оть $\epsilon \kappa$ тov ovp］ $\alpha[$ vov

12 Line length indicates that $\mathbf{4 4 4 2}$ contained repeated cov after $\mu \eta \tau \epsilon \rho a$ ，as the Massorctic Text，cf．Deut． 5：16．This feature affects also the two quotations of this passage in the Ncw Testament：Mark $7: 10$ ，where the pronoun is repeated in the majority of the witncsses（whin in repetition represents a variant nd 15 The printed
omission of cov（with 82 131 106－107＇ 343509799 Did $P_{s}$ to7 we have a reduced form of $\overline{k c}$ o $\overline{\theta c}$ ，or the
 $82 f$ I20＇Sa，and the order usually accepted by editors．From the textual point of view this order has very ittle support．See J．W．Wevers，Text History of the Greek Exodus，Mitteilungen des Septuaginta－Unternehmens xxi（Göttingen，1992），171．The tradition presents various word－orders，evaluation of which requires an accurate examination of the textual tradicion both in the LXX and the New Restament：
in Deut．5：17－19，followed by Luke 18：20，Rom 13：9，Philo，De decalogo 5 1（cl．121），

3） 799 （a minuscule manuscript considercd by Wevers，op．cit．， 171 I，＇a wayward and idiosyncratic text＇）

 he rest of the tradition，including the Codex Alexandrinus，and found in Matth $19: 18$ and Mark 10 ． was probably the order accepted by Origen．

Taking into consideration the date to which it should be assigned，the papyrus provides strong evidence in favour of B＇s order．Was this the original order？As Wevers，op．cit．，p．171 points out，the B text cannot easily be explained as the product of textual revision．

$6 \mu \omega \dot{\theta}\left[\subset \eta v: \mu \omega c \eta \nu{ }^{15} 55^{1} n, \mu \omega c \eta 7^{2} 610, \mu \omega \omega^{c}\right.$ 107．Cf．$\rightarrow 9 n$ ．The form $\omega v$ is the original Greek ranscription from Hebrew，while the form $\omega$ is the Alexandrian transcription（W．Bauer，Wörterbuch（rg88） （1979）${ }^{11}$ ）．
II 1201 III i1 69 V 364 VII 688 （but $\mu \hat{\eta} \pi \tau \tau \epsilon$ in IV 600 VIII 685 X 755）Eus VI 429 Tht III 648 （but $\mu \hat{j} \pi о \tau \epsilon$ in Compl）．

9 a．vтoc：populo $\mathrm{Arab}=\mathfrak{M}$ ；transposed after $M \omega u c \mathfrak{q c} c$ by $O-\mathrm{I} 5$ Bo Syh $=\mathfrak{M}$ ． $\mu \omega v\left[\right.$［ $\eta$ c：diaeresis was probably present，but no trace survives．$\mu \omega c \eta c$ B $O^{-376-15}$ 126 $n$（but $\mu \omega v c \eta c$ in Sixt）．Cf．$\rightarrow 6 \mathrm{n}$ ．

16 The dicolon is so faded，compared with the rest of the script，that it may have been added by a second hand into the existing blank space．

D．Согомо

4443．LXX，Esther Ei6－9．3
$445^{\mathrm{B} .62 / \mathrm{F}(\mathrm{r})}$

## $16.9 \times 30.2 \mathrm{~cm}$

Late first or early second century
The papyrus preserves parts of three columns written along the fibres：the right two thirds of the first（E16－23），the second complete（E23－24；8．13－8．17）and scanty remains from the line beginnings of the third $(9.2-3)$ ．The generous upper $(4.5 \mathrm{~cm})$ and lower（ 5.5 cm ）margins may be complete；in any case，this was a luxurious copy．The columns have 31 lines（height 20 cm ）with an average 25 letters（width 7 cm ，plus 0.5 cm for projecting letters at paragraphs）．The intercolumnium is approximately 2 cm ．The back is blank．

This is the first known copy of a passage from Esther in roll－form，a rare format for biblical texts，probably indicating Jewish provenance（C．H．Roberts and T．G． Skeat，Birth of the Codex $3^{8-40}$ ）．It is also the first papyrus to preserve this passage． P．Chester Beatty IX（Rahlfs 967，Van Haelst 315）breaks off at Est． 8.6 and P．Palau Rib．inv．I63（S．Daris，Aegขtus 66 （1986）106－7）presents Est．4－4－5，8－in．The text generally follows $o^{\prime}$ and agrees rarely with $L$（i $2,6,7,31$ ；thus in the apocryphal parts）． Cols．i I－ii 14 which present the end of the fifth of the so－called＇Additions＇to Esther （i．e．the edict of Artaxerxes beginning after Est．8．12）are full of variants，additions and omissions，not all to be found in the MSS－tradition．

There are no diacritical signs or punctuation，apart from some paragraphi（with short lines preceding them，and projecting enlarged letters at the beginning of the following line），and diaeresis above $\iota$（ii 24,31 ；iii 6,24 ）and $v$（i 6 ，ii 16 ）．Words are occasionally separated．There are occasional space fillers at the line ends，and the centre bar of $\epsilon$ is frequently extended for the same purpose．Iota adscript is generally used （ii so the only exception）；four examples are irrational（ii 25，27，28，29）．Itacism occurs in i 2,18 ， 19 ．

The script is fluent and broadly bilinear，but with its frequent ligatures，cursive forms，enlarged initial letters and tall risers／deep descenders（ $\rho, \varphi$ ，sometimes $\imath$ ）it perhaps owes more to official documentary styles than to bookhands．For the general appearance cf．the earlier Roberts GLH 9a（between $7-4 \mathrm{BC}$ ）．

Collated with Septuaginta，Vetus Testamentum Graecum Auctoritate Academiae Litterarum Gottingensis editum，vol．VIII 3，Esther，ed．R．Hanhart，Göttingen 1966.

Col．i
［vభıcтоv］ка！$\mu \epsilon \gamma \iota<\tau о v \zeta \omega \nu \tau о c>$
［ $\theta$ єov тоv］катєขӨuyavтос $\eta \mu \epsilon \iota$
［ $\tau \in \kappa \alpha \iota \tau о \iota]$ с $\pi \rho \circ \gamma$ ороис $\eta \mu \omega \nu \tau \eta \nu$
［ $\beta a c \iota \lambda \epsilon \iota \alpha \nu] \kappa \alpha \theta a \pi \epsilon \rho \rho \pi \rho о \alpha \iota \rho о v \mu \epsilon \theta a$

［ $\chi \rho \eta с а \mu \epsilon]$ роє тоьс v̈то а а а⿱ ато
［ста入єıcıv $\gamma] \rho a \mu \mu a \subset \iota \delta \iota a$ то каı avтоv
［ $\tau \sigma \nu \tau \alpha v \tau] a$ $\pi \alpha \rho \alpha[\nu] о \mu \omega \subset \in \xi[\epsilon] \rho \gamma \alpha$

［．．．covc］$\omega v \pi v \lambda a i c ~ c v \nu \pi[\alpha]$ ！oı
［кıaı $\tau \eta \nu]$ ката ${ }^{[ }[\iota a] \nu \tau o v \tau \alpha \pi \alpha \nu \tau \alpha$

$[\alpha \pi о \delta o \nu \tau]$ oc $\alpha v \tau \omega \iota \tau \eta \nu[\alpha] \pi \omega \lambda \epsilon \iota \alpha \nu$
［ $\tau \circ$ a $\alpha \tau \iota \gamma \rho] a \phi o \nu$ т $\tau \subset \subset \in \pi \iota \subset[\tau 0 \lambda \eta \subset$
$[\tau \alpha \nu \tau \eta c] \in \chi \theta[\epsilon \nu] \tau \epsilon \subset \in \nu \pi a \nu[\tau \iota \tau]$ ．
$[\pi \omega \iota \mu \in \tau \alpha] \pi \alpha \rho \rho \eta[c]!a c \in[\alpha] \nu \tau[$ ovc $\iota]$ ？

［ $\mu \iota$ ооис к］аи сvעєтєєс $\chi v \epsilon![\nu$ аvтоис
$[o \pi \omega c \tau o v c] \epsilon \nu \kappa \alpha[l] \rho \omega \iota \quad \theta \lambda \epsilon \iota \psi \epsilon[\omega]$ ¢
$[\epsilon \pi \iota \theta \epsilon \mu \epsilon]$ vove $\alpha v \tau o[\iota c] a \mu[v \nu \omega \nu \tau] \alpha \iota$
$[\ldots . . \tau]$ оv $\delta \omega[\delta]$ єкаточ $[\mu \eta \nu о]$ с
［．．．．．$\alpha \delta] \alpha \rho \tau \eta[\iota]$ av $\eta \iota \eta \mu[\epsilon \rho \alpha \iota \tau \alpha] v$
［ $\tau \eta \nu \gamma \alpha \rho \circ \tau \alpha] \pi \alpha \nu \tau \alpha \delta v \nu \alpha \subset \tau \epsilon[v \omega]$ ！
$[\theta \epsilon o c$ avt o入］$] \epsilon \rho \epsilon \iota \alpha c$ тоv $\epsilon \kappa[\lambda \epsilon] \kappa-$
$[\tau 0 v \gamma \epsilon \nu O v]$ с $\epsilon \pi \rho[\uparrow] \eta \subset \in \nu$ avтouc $\epsilon v$
［фоосvv$\eta \nu]$ ка！v $\mu \in \iota \subset \in \nu$ таルс $[\epsilon \pi] \omega$

$[\tau \alpha \pi a<\eta<\epsilon] \cup \omega \chi \iota[a]<$ $\alpha \gamma \epsilon \tau \epsilon \kappa \alpha \iota-$
$[\nu v \nu \kappa \alpha \iota \mu \epsilon] \tau \alpha \tau \alpha v \tau \alpha<\omega \tau \eta \rho[\iota] \alpha \nu \mu \epsilon \nu$
$[\tau \omega \nu \epsilon v \nu o o] v y \tau \omega \nu$ тоוс $\pi \epsilon \rho с \alpha u c-$
$[\tau \omega \nu \delta \in \tau o v \tau]$ ouc $\epsilon[\pi] \iota \beta o v \lambda \epsilon v \subset a \nu \tau \omega \nu$

Col．ii
$\mu \nu \eta \mu о с v \nu \eta \nu \quad \tau \eta \subset$ а $\pi \omega \lambda \epsilon \iota \alpha c$ $\pi \alpha c \alpha \delta \epsilon \pi o \lambda \iota c ~ \eta$ Хшра тo cvvoגov $\eta \tau \iota \subset$ ката таvта $\mu \eta$ тоьךсךь סо $\rho \alpha \tau \iota \kappa \alpha \iota \pi v \rho \iota \kappa \alpha \tau \alpha \nu a \lambda \omega \theta \epsilon \iota \subset \alpha \mu \epsilon$ $\tau$ ор $\eta$ с ov $\mu$ оуоv $\alpha \nu \theta \rho \omega \pi$ огс $\alpha \beta \alpha$

 катастаӨךсєта兀
$\tau \alpha \delta \epsilon \alpha \nu \tau \iota \gamma \rho a \phi \alpha \in \chi \theta \epsilon \iota \nu \alpha \iota$ оф $\theta a \lambda \mu o$
$\phi \alpha \nu \omega c \in \nu \pi \alpha c \eta!\tau \eta \iota \beta \alpha c \iota \lambda \epsilon \iota \alpha \epsilon$
то［ı］$\mu$ ovc $\delta \in \epsilon \iota \nu a \iota ~ \pi a \nu \tau а с ~ \tau о и с ~$ $\iota 0[v] \delta \alpha \iota o v с \epsilon \iota \subset \tau \alpha v \tau \eta \nu \tau \eta!\eta \eta \epsilon$ $\rho a \nu \pi o \lambda \epsilon \mu \eta<\alpha \iota ~ \alpha v \tau \omega \nu$ тovc $v \pi \epsilon$ ＿＿vavtıove
$\qquad$ o८ $\mu \epsilon \nu$ ovv $\iota \pi \pi \epsilon \iota c \epsilon \xi \eta \lambda \theta$ ov $\subset \pi \epsilon v$
$\mu \epsilon \nu \alpha \in \pi \iota \tau \epsilon \lambda \epsilon!\nu \in \xi \in \tau \epsilon \theta \eta \delta \epsilon$
$\tau о є \chi \theta \epsilon \mu \alpha[\kappa \alpha] \iota \epsilon \nu$ covco！c o $\delta \epsilon$
$\mu \alpha \rho \delta о \chi \alpha \iota \circ \subset \xi \xi \eta \lambda \theta \epsilon \nu \in \subset \tau о$

 covv каı ठıaסףна 乃uccıvov－
$\pi о \rho \phi \nu \rho o v[\nu \imath] \delta o \nu \tau \epsilon c$ $\delta \in$ o८ $\epsilon \nu$ covcouc єХарךсаv тоוс $\delta \epsilon$ ïov $\delta a \iota$

ката $\pi[o] \lambda \iota \varphi$ каı $\chi \omega[\rho a]$ ！ov $\alpha v \epsilon$



$\tau \omega \nu \in \not \subset \nu \omega \nu \quad \pi \epsilon \rho!\epsilon \tau \epsilon \mu \nu[0] \varphi \tau ?$


Col．iii （lines $\mathrm{I}-5$ lost）
iov［ $\delta a \iota o u c$ ov $\delta \epsilon \iota c ~ \gamma \alpha \rho$ av $\tau \epsilon c \tau \eta \iota$ фо
ßо［vиєvoc avtove
${ }_{0!}[\gamma \alpha \rho \alpha \rho \chi o \nu \tau \epsilon c \tau \omega \nu$ ca $\rho \rho \alpha \pi \omega \nu$
ка $\lceil\iota$ оь тvралvo七 кає оь $\beta$ асı入ıкоь
$\gamma \rho \alpha[\mu \mu a \tau \epsilon \iota \subset \epsilon \tau \iota \mu \omega \nu$ rovc เov
$\delta$［aıovc
（Occasional traces below，see col．iii i I n．）

Col．i
 adjectives is not supported by the MSS tradition．

Space allows inclusion of $\tau \in$ with 0 ；om．$\tau \in$ 1o6．
 though not uncommon in LXX（in similar context cf．e．g．III Ma．7．2．），occurs anywherc elsc in Esther．Th expression（＇as it is our deliberate choice＇）may imitate the formulaic language of edicts，cf．Bauer，Wörterbuch

 difficulties cf．Est．A17，

$8 \pi а \rho a[\nu] \quad \mu \omega c$ ：om．cetcri．$\pi \alpha \rho \alpha \nu^{\prime} \mu \circ \mathrm{o}$（whether as adjectivc or in adverbial form）does not occur elsewhere in Esther．
 reading of $3 \Perp$ ，but the syllabification makes $o^{\prime}$ more probable．
 covcov（236），but do not suggest any longer reading or additional word；it is hard to imagine here anything else than a miswriting or just the article，thus $\tau \omega \nu$ covccuv（for the insertion of the article－but followed by a reading not represented by the tradition－see also i 13 ）．




E．Mayser－H．Schmoll，Grammati
6．iff．
17－18 In lacuna：voннокс BVa 55 108 318392 542；vонокс rel Ios XI $28 \mathrm{r}=L$（cf．Est．8．tr）．


（ $=\mathrm{La}^{-v}$ ；but the context of $L$ as a whole is different）．$\delta \omega \delta$ єкатоv：$\delta$ єкатоv 583 ；om．a $=L$ ．None of these form
will fit the papyrus．Did it read $\tau \eta \iota \iota \gamma^{-}$？

 $\eta \mu$ крас $\mathrm{S}^{*}$ ．
 makes omшc superfluous.




Col. ii



8 After this line a short paragraphus marks the beginning of the postscript of the edict

ro Bacideca without expected $\imath$ adscript.
II $\delta \epsilon$ with $\mathrm{A} ; \tau \epsilon \theta^{\prime}$.
${ }_{14}$ After this line another short paragraphus marks the end of the edict.



27. 1. єкөє $\frac{1}{\pi a .}$

Col. iii $\mathbf{6 - 7 4 4 3}$ provides no support for the extensive additions supplied at this point by various MSS
$6-7443$ provides no support for the extensive additions supplied at this
8 Above oi, too much abrasion to decide if there had been a paragraphos,
II Below this line there are occasional traces of line beginnings down nearly to the foot of the column. The traces nowhere extend beyond the first letter of the line, and none can be identified except for a probable $\iota$ [ with $\eta$ [ immediately below it level with ii $24-5$.

Below this (level With ii 27 and 29-30) are two traces in ecthesis, which ought to imply paragraph beginnings as elsewhere on the papyrus.
K. Luchner
4444. Sapientia Salomonis 4.17-5.1

8 IB. $199 / \mathrm{K}(3)$ a
$8.6 \times 8.7 \mathrm{~cm}$
Fourth century
This is the first fragment of Sapientia Salomonis to come from Oxyrhynchus, and was published by I. A. Sparks, Fournal for the study of Judaism in the Persian, Hellenistic and Roman periods 3 (1972) 149-52. The fragment preserves the bottom outer corner of a leaf from a parchment codex. Judging from the amount of text missing between recto and verso, the original page contained 17 lines, with a single column of text measuring approximately 9 cm high by 7 cm broad. (A single-column format can be inferred only from the fact that a two-column leaf would measure c. 14 cm high by 20 cm broad, contrary to the prevailing vertical format of uncial parchment codices.) The lower margin (c. 2.5 cm ) and the outer margin (c. 2 cm ) appear more or less intact, so that we might estimate the original leaf size as about 14 cm high by iI cm broad.

The text is written by cola, with each colon (except at recto line 6 , where we have a double point instead) beginning a principal line and continuing on a line indented
c. 0.7 cm . When the text runs on to a third line, this can be further indented by $0.2-0.5 \mathrm{~cm}$ (but not in verso line 8 , which is only indented level with the line above it).

The hand is a light and delicate uncial of the so-called 'Biblical' type, with occasional serifs, in a now brownish ink. We may compare the hand of the Psalms text P. Berol. 5011 (G. Cavallo, Ricerche sulla maiuscola biblica II pl. 44).

With the exception of the double point in recto line 6, there is no punctuation. There are no accents or breathings. Iota adscript is not used. The nomen sacrum $\overline{k c}$ occurs twice (recto lines 4,6 ).

Collation of $\mathbf{4 4 4 4}$ with the Göttingen critical apparatus of J. Ziegler (Septuaginta XII.I; 2nd ed., 1980) identifies the new fragment as belonging to the earliest and most reliable strand of the manuscript tradition. Whereas $\mathbf{4 4 4 4}$ diverges frequently from most of the witnesses cited by Ziegler, it never disagrees with Codex Vaticanus (B) except at 4.20 where $\mathbf{4 4 4 4}$ (verso line 6) has the reading $\hat{\epsilon} \xi \in \lambda \epsilon \in \gamma \xi \epsilon \iota$ in place of $\hat{\epsilon} \lambda \hat{\epsilon} \gamma \xi \xi \epsilon \epsilon$.

To Ziegler's list of MSS., pp. 7 ff ., add the lost fragment listed by J. Van Haelst, Cat. des pap. littéraires juifs et chrétiens no. 278.

Recto (flesh side)

$[\lambda \epsilon v c] a \tau \circ \pi \epsilon \rho \iota$ avтоv

$[\alpha v]$ qov o $\overline{k c}$
5 [o廿]ovтaı каı є $\xi$ ov $\theta \epsilon \nu \eta$
[co]vciv: avtove $\delta \in o \overline{k c}$

$$
\epsilon \kappa \gamma \epsilon \lambda a c \epsilon \tau \alpha \iota
$$

$[\kappa \alpha \iota \in c]$ ov $\left.\frac{?}{[\alpha \iota} \mu \in \tau\right] \alpha$ रovтo
[ $\epsilon \iota \subset \pi \tau \omega \mu \alpha \alpha \tau]!\mu о \nu$
เо $\quad[\kappa \alpha \iota ~ \epsilon \iota c ~ v \beta \rho ı \nu ~ \epsilon \nu]$ ] $\boldsymbol{\epsilon \kappa \rho о \iota с ~}$
[ $\delta \iota \alpha \iota \omega \nu \circ c$ ]
[õı $\rho \eta \xi \in \iota \alpha v \tau \circ] \cup \subset \alpha \varphi \omega$

$$
\text { [vovc } \pi \rho \eta \nu \in \iota \subset]
$$

Verso (hair side)
$\kappa \alpha!~$
$\cdots \mu \nu[\eta \mu \eta$
$\pi o \lambda \epsilon \iota \tau \alpha \iota$
$\epsilon \lambda \epsilon v c o \nu \tau a \iota \in \nu c v[\lambda \lambda o]$
$\kappa \alpha \iota \epsilon \xi \in \lambda \epsilon \gamma \xi \epsilon \iota \alpha v \tau \sigma[v \subset \epsilon]$ $\xi$ єvavtiac $\tau \alpha$ av $[0]$ $\mu \eta \mu[\alpha \tau \alpha] \alpha \nu \tau \omega \nu$
тoтє $\subset \tau[\eta<\epsilon \tau \alpha \iota \in \nu \pi \alpha \rho \rho \eta]$ сьа $\pi[о \lambda \lambda \eta$ о $\delta \iota к \alpha \iota \circ \subset]$
$\kappa а \tau \alpha[\pi \rho о с \omega \pi о \nu \tau \omega \nu]$
$\theta \lambda_{\iota} \psi[\alpha \nu \tau \omega \nu$ av $\alpha o \nu]$

Recto


2 т $\epsilon \rho \stackrel{a}{ }$ aurov: Clcm . + deus La Sy.





if $\delta$ i: om. A.

2-13 $\alpha \varphi \omega[$ [ovc; aqpe Osiander (acc. to Schleusner I 426)

Verso



$6 \epsilon \xi \epsilon \lambda \epsilon \gamma \xi \xi \epsilon: \in \lambda \epsilon \gamma \xi \xi \in \iota$
7 Ta: om. $l$
$7-8$ av $[0] \mu \eta u$

 тappŋcıa $\pi$ т $\lambda \lambda \eta$ in V 766 La verss. $P$ Ps. Hipp. Dam. p. 1364; La converts subject and verb to the plural.

I. A. Sparks
R. A. Coles

## 4445-4448. New Testament; Gospel of John

The following four fragments bring the total of published papyri of St John's Gospel up to 27 . The 23 papyri previously known have been republished and recollated in W. J. Elliott and D. C. Parker, The New Testament in Greek IV: The Gospel according to St Fohn, Vol. I: The Papyri (=NTTS XX; Leiden, 1995). The supplements in the transcrip-
tions given below are from the 27th edition of Nestle-Aland, Nooum Testamentum Graece (Stuttgart, I993). Any exceptions are indicated in the apparatus criticus, which is based on this edition with occasional further information from Tischendorf, editio octava critica maior. In addition Elliott-Parker has been used for the papyri and A. Jülicher, Itala: Das Neue Testament in altlateinisher Überlieferung IV (1963), for the Old Latin. Symbols used for citing manuscripts follow the practice of Nestle-Aland ${ }^{27}$.
4445. John i $29-35 ; 40-46$

A 6r53-4

$$
8.8 \times 13 \mathrm{~cm}
$$

Third century
This stained fragment of a leaf from a papyrus codex contains the upper part of pages 3 and 4. The page numbers gamma and delta stand in the middle of the upper margin. Like P. Bodmer $I I=\mathfrak{P}^{66}$, this copy of St John's Gospel was also the first item in the codex or stood by itself. $\mathbf{4 4 4 5}$ has been assigned the number $\mathfrak{P}^{106}$

The text is written in a carbon ink with a narrow pen in an upright, plain script, which bears some resemblance to C. H. Roberts, Greek Literary Hands, 200 (P. Ryl. III 463 , Gospel of Mary), assigned to the mid third century, and $20 b$ (VIII 1100) of AD 206 Cf. also XXXI 2539 (Dictys Cretensis), which is datable to the second/third century; this is written in a similar, slightly smaller, more cramped hand on which its editor (Barns) commented 'it would not be out of place in the more formal kind of document, such as a lease'. The same can be said of $\mathbf{4 4 4 5}$, which may be assigned to the third century, more probably the first half. The letters are largely bilinear and 3 mm high. Beta, phi and psi all extend above and below the line. Delta sometimes has a heavy leftward cur at the top of the right-hand diagonal; mu, xi, ypsilon and omega are each written in a single movement without lifting the pen. Alpha, tau and ypsilon can be ligatured to the following letter.

There is an apostrophe after $\iota c \rho \alpha] \eta \lambda$ in $\downarrow 8$ (a feature which supports a third-century dating for the text, see E. G. Turner, $\left.G M A W^{2}, ~ I I\right)$, and in $\beta_{\eta} \theta^{\prime} c a i \delta \alpha(\rightarrow I 5)$. Here and occasionally elsewhere tremata are used. The following nomina sacra are found: $\overline{\theta c}, \overline{\overline{ } \bar{c}}$, $\overline{\pi \nu \alpha}$ and $\overline{\chi \rho c ;} v \iota o c$ (in both sacral and non-sacral use), $\iota \rho \rho a \eta \lambda$ and ovpavoc are not abbreviated. There are no other lectional signs, but initial iota in $\downarrow 2$ is enlarged (for this feature see C. H. Roberts, Manuscript, Society and Belief, London 1979, 16-18).

A calculation from the amount of text missing between the bottom of page $\gamma$ and the top of page $\delta$, if we assume a normal text, shows that there were probably 36 lines to the page. The surviving top margin is 1.5 cm . Twenty-one lines of text occupy a height of $c . I I .5 \mathrm{~cm}$, so that the written area of 36 lines would have occupied a height of just under 20 cm . Using Turner's rule of thumb that the lower margins are to the upper margins in a proportion of $3: 2$ (The Typology of the Early Codex, Philadelphia 1977, 25), the lower margin would have been at least $c .2 .25 \mathrm{~cm}$. Thus the height of the page would have been at least $c .23 .5 \mathrm{~cm}$. The left margin of page $\delta$ is I .3 cm and the width
of the surviving text on page $\gamma$ occupies $c .9 \mathrm{~cm}$. So if the right margin matches that of the left, the width of the page would have been at least iI. 6 cm . Since a left margin survives on page $\delta$ but there are no surviving margins on page $\gamma$, the page is likely to have been up to 1 cm wider than this. This fits reasonably well into Turner's Group 8.
$\delta$
$\tau] \omega \nu \delta v o \tau \omega y$ акоv
[cavт $\omega]$ ] $\pi \alpha \rho a$ iwavvov кац $\eta$
. . [. . .] av avт $\omega$ єvрıcк[єו] $\pi \rho \omega$
 каı $\lambda \epsilon \gamma \epsilon \iota \quad \alpha v \tau[\omega] \epsilon v \rho \eta \kappa \alpha \mu \epsilon[\nu]$ тоv $\mu[\epsilon]$ ccıav o єст! $\varphi[\mu \epsilon] \theta \epsilon \rho \mu \eta \nu \epsilon v[o] \mu \in \nu \circ[\nu]$
$\overline{\chi \rho c} \eta \gamma \alpha \gamma \epsilon \nu \alpha[v]$ тov $\pi \rho o c \quad \eta[\nu \epsilon \mu \beta \lambda \epsilon$

$\gamma \in \gamma \circ[\nu] \epsilon v$ oт $\pi \rho \omega[\tau]$ oc $\mu \stackrel{[ }{0}[v] \eta \nu \kappa \alpha \gamma \omega$
ovk $[\eta] \delta \epsilon!\nu$ avтoy $[\alpha \lambda \lambda]$ ! $[\nu]$ a ф $\alpha \nu \epsilon \rho \omega \theta \eta$
$[\epsilon \nu v \delta \alpha] \tau \iota \beta \alpha \pi \tau \iota \zeta \omega \nu$ каı $\epsilon \mu \alpha \rho \tau v$
[pךcєv i] $\omega a \nu \nu \eta[c]$ o $\tau i \tau \in \theta \in \alpha \mu \alpha$
то $\pi \nu \alpha$ катаß $\alpha\llcorner\nu[o] \nu \omega<\pi \epsilon \rho \iota c \tau \epsilon$
$p \alpha \nu \epsilon \xi$ o[v] pavov каı $\epsilon \mu[\epsilon \tau \nu \epsilon] \nu \in \pi[\alpha v]$

? $\pi \epsilon \mu \psi a<\mu \epsilon \beta \alpha \pi \tau \iota \zeta \epsilon \nu \nu[\epsilon \nu \tau \omega]$

$\epsilon \alpha \nu \iota \delta \eta \subset$ то $\overline{\pi \nu \alpha} \kappa \alpha \tau \alpha \beta \alpha[\iota \nu o v]$
[ $\kappa$ ] a $\mu \epsilon \nu \circ \nu \in \pi$ avrov ovtoc [ $\epsilon \subset \tau \iota \nu]$
$[o] \beta a \pi \tau!\zeta \omega \nu[\epsilon] \Gamma \overline{\pi \nu \iota}$ a $\gamma \iota \omega[\kappa \alpha \gamma \omega]$
рака ка! $[\mu \epsilon] \mu \alpha \rho \tau v \rho \eta[\kappa \alpha$ отা]

$\tau \eta \in \pi \alpha u \rho![0 \nu$
4445. JOHN i 29-35; 40-46

10

20
ب!oc ïwavvou [c] $v \kappa \eta \theta \eta$ [с $\eta \kappa \eta \phi а с]$

- $\epsilon \rho \mu \eta \nu \epsilon v[\epsilon \tau \alpha] \iota \pi \epsilon \tau \rho \rho \circ \varsigma \tau \eta \epsilon \pi \alpha[v]$
pıọ $\eta[\theta \epsilon \lambda] \eta \subset \in \nu \in \xi \in \lambda \theta \epsilon \in \downarrow \in \iota \subset \tau \eta[\nu \gamma \alpha]$
$\lambda_{\iota} \lambda \alpha[\iota \alpha]$ ? кає єvрıскєє $\phi_{\iota} \lambda_{\iota} \pi \pi \alpha \nu \kappa\left[\begin{array}{ll}\iota \iota & \lambda \epsilon]\end{array}\right.$ $\left[\begin{array}{lll}\gamma \epsilon \iota & \alpha v\end{array}\right] \tau \omega$ о $\overline{\iota \overline{ } с}$ акодоv $\theta \epsilon \iota \mu$ но $\eta p[\delta \epsilon$ о
$[\phi \iota \lambda \iota] \pi \pi$ ос ато $\beta \eta \theta^{\prime} c \alpha i \delta \alpha \in \kappa \tau \eta[c]$

 $[\lambda \epsilon \gamma] \epsilon \iota$ av $\omega \omega$ ov $\epsilon \gamma \rho \alpha \psi \in \nu \mu \omega[v \subset \eta c \epsilon \nu]$ $[\tau \omega \nu \circ] \mu \omega \kappa \alpha \iota \circ!\pi \rho \circ \phi \eta \tau \alpha \iota \in[v \rho \eta]$ $[\kappa \alpha \mu \epsilon]$ ! ! $\overline{\eta \nu}$ vïo[ $\nu]$ Tov iшсทф [тov] [ $\alpha \pi о \nu \alpha \zeta \alpha] \rho \epsilon \theta$ кa! $є \iota \pi \epsilon \nu \quad a v[\tau \omega]$

$\downarrow$

$8 \varepsilon \gamma \omega \eta \lambda \theta o v$ : so C* ${ }^{157} p c$, supported by b and the Bohairic; all other MSS have $\eta \lambda \not \lambda o \nu$ єy $\omega$.
8-9 $\eta \lambda$ Aov $\in \nu$ v $\delta a r \iota$ is the reading of $\mathfrak{B}^{35}, \Re^{66}$ and $\mathfrak{B}^{75}$ and some majuscules, including ${ }^{\mathcal{N}} \mathrm{BCCL} \Theta$, and some minuscules, including $f^{1} ; \tau \omega$ is added before voarı by A , other majuscules, $f^{13}$ and $\mathfrak{M}$. The reading of 4445 is uncertain, since $\eta \lambda \theta o v$ is at the edge of the papyrus and $[\epsilon \nu]$ could therefore have followed at the end of line 8 , thus allowing the restoration $[\tau \omega v \delta \alpha] ~ \tau c$ in line 9 .

的y in before correction, with the support one Old Latin MS, e (the rest include dicens).

 $\left.{ }^{14-15[\epsilon \nu} \tau \omega\right]$ voari: spacing strongly suggests that this was the reading of the papyrus; similarly $\mathfrak{P}^{66}{ }^{66}$ $f^{1}$ pc sam ${ }^{\text {mans }}$; Or ${ }^{\mathrm{pt}}$. Nestle-Aland print $\epsilon v$ v $\delta a r t$, following the majority of the MSS
${ }^{5} 5$ Omicron of $\mu$ ot corrected from iota.
16 eav: there is a horizontal stroke
at the left of the alpha, which could only be part of epsilon. The I8 After $\alpha$ a $\omega \mathrm{C}^{*}$, with support from
iii. 11); $\mathfrak{B}^{75}$ reads ayw ${ }^{*} \kappa a \mid \gamma \omega$, but a corrector has added $\kappa a[$ over $\kappa \alpha$, which no doubt means that the corrector added кa[ı $\pi v \rho$. There is certainly no room for this addition in 4445.

20 Although the reading is not certain, the papyrus appears to agree with $\aleph^{*}$ and a few minuscules in eading o єкגєктос тov $\theta v$, which has the support of e ff²* sy sic; similarly the Sahidic. $\AA^{\circ}$ and most other MSS read o vooc tov $\theta$ eov, supported by the majority of Old Latin MSS, the Vulgate, and other versions.
 line 3 there would be just room for one or two letters lost, but there is a blank space after eta, which is aligned with the omega from the line below, thus suggesting that it was the last letter on this line. The faint traces at the start of line 4 might be read кo入, and there may be just room for 4 letters in the lacuna following, suggesting that the papyrus read $\eta \mid \kappa \circ \lambda[$ ovi $\eta]$ cav (influenced by verse 37 ?).

4 After $\epsilon u p \iota c k[\epsilon]$ all Greek MSS, most Old Latin MSS and all versions insert outoc (or equivalent). The omisson of ovooc is supported by c , which omits $h i c^{\text {, and }}$ pcrhaps by b, which replaces $h i c$ with autem.
 been the reading of the papyrus.
$7^{-8} \wedge \mathrm{AB}$ al read simply $\overline{\chi \rho c ;}$; the article is added by $\mathfrak{P}^{66} \mathfrak{P}^{75}$ and a few minusculcs, and this may have been the reading of 4445
fice correction and Fifore correction, $\mathfrak{B}^{75} \propto \mathcal{B} \mathrm{~L} 579 p c$, supported by onc Latin MS, b; G $f^{1} p c, \mathfrak{P}^{66}$ upported by $m$,

hough the superscript har add tov after mpoc. This cannot have been the reading of the papyrus, even .
 33. 892. I241. ${ }^{1424}$. pm, supported by sy ${ }^{14 * *}$ and

10 iwavvou: so $\mathfrak{P}^{66} \mathfrak{P}^{75}{ }^{7} \mathrm{~K}^{*} \mathrm{~L} \mathrm{~L} \mathrm{~W}^{3} 33 p 6$, with the support of some Old Latin and Coptic versions; A $B^{2} \Psi f^{1.13} \mathfrak{M}$, together with sevcral Latin MSS and some Syriac and Coptic versions, read $\omega v \nu a ; \Theta$ I241 $p c$ and some MSS of the Vulgate read ıwavoa.

15-16 All MSS read $\epsilon \kappa \tau \eta \subset \pi$ тол $\epsilon \omega c$, but it is very difficult to read [ $\pi 0]$ ] $\bar{\epsilon} \epsilon \omega$, in the papyrus; it is particularly hard to make the traces fit the expected omega.

20 Some MSS, AL $\left(W^{3}\right) \Theta \Psi f^{1,13} \mathfrak{M}$ and Or ${ }^{p t}$, add $\tau$ ov before viov. The papyrus follows $\mathfrak{B}^{66} \mathfrak{B}^{75}$ B 33. $579 . l_{2211} p c$ and $\mathrm{Or}^{\mathrm{rt}}$ in omitting it.
 quotations in the fathers support valapee7. Similarly in line 22 .

W. E. H, Cockle
4446. John xvii I-2; I I

## A ${ }_{3} \mathrm{~B} 6 / 6 \mathrm{~B} \cdot 39$

 $4.4 \times 4.4 \mathrm{~cm}$Third century
The text is written in carbon ink in a semi-cursive script, which is largely bilinear. It has a slight tendency to slope to the right. It is written without excessive speed and very clearly. The letters are 3 to 4 mm high, being slightly taller on the $\downarrow$ side. Delta sometimes has a high right-hand diagonal stroke detached from the rest of the letter, and with a top flourish curling to the left. Epsilon is oval and inclined to the right. The script bears some similarity to the hand of XXXIII 2659, which its editor (Rea) assigned to the second century; but $\mathbf{4 4 4 6}$ has differences in some of the letters, notably epsilon and kappa, which, together with the slope mentioned above, suggest that it is not to be dated earlier than the third century. 4446 has been assigned the number $\mathfrak{P}^{107}$.

What survives is a fragment from a page of a papyrus codex. As no margins survive the supplements at left and right are arbitrary. The number of letters per line averages 23 , which suggests that 26 or 27 lines have been lost between the two sides, and that the original page had some 33 lines; this assumes a normal text and that the restoration suggested for $\rightarrow$ is essentially correct. It seems that the fragment had at some point
been folded vertically, with side $\downarrow$ on the inside, between $\epsilon \delta \omega \kappa a c$ and $a v \tau \omega$ in line 5 , as shown by the worm-cut upper edge which is symmetrical about the fold, and the damaged strip some 3 mm wide on the $\downarrow$ axis of fold where the surfaces stuck to each other. The pen was resharpened before the $\rightarrow$ page was written, as the nib is narrower than before. There are no marks of punctuation, but inorganic tremata are used on wo in $\downarrow_{4}$ and 6 , and there may be a rough breathing over $\epsilon \nu$ in $\rightarrow 7$. On the use of nomina sacra see the notes to $\downarrow \mathrm{I}-2$ and 4 .
$\downarrow$

$$
] \kappa \alpha \iota \in \pi[a \rho a c \tau o v \subset ~ o \phi \theta a \lambda \mu o v c a v]
$$

xvi1. I

$[\lambda \eta \lambda v] \theta \in \nu \quad \eta \omega[\rho a \delta o \xi a c o \nu c o v]$

$$
\left[\begin{array}{ll}
\tau o v & \overline{v v}] i v a
\end{array} \kappa[a \iota o \overline{v c} \delta] o \xi[a \subset \eta c \epsilon]\right.
$$


[ $\pi \alpha \subset \eta]$ ¢ саркос iva $\pi \alpha \nu[о \delta \epsilon \delta \omega]$
$[\kappa \alpha c \alpha v] \tau \omega \delta \omega c a[v] \tau \omega \zeta \omega[\eta \nu$
]. .[...].]

$$
\begin{aligned}
& \text { ].... [ } \\
& \text { ] } c \in \epsilon \rho \chi[o \mu \alpha l] \\
& {[o v \kappa \epsilon \tau \iota \epsilon \iota \mu \iota \epsilon] \text { ! } \tau \omega[\kappa о с \mu \omega]}
\end{aligned}
$$

$[\mu a \tau \iota ~ c o] v \omega \in \delta \omega \kappa а с ~ \mu о \iota ~[\nu v a]$

## ]. . [

${ }_{\mathrm{I}-2}$ The supplement tovc oфfaגuovc avtov scems to be too long, however the words were divided between the lines. No variants are attested in Greek MSS but some Old Latin MSS (aur b e) and the Vulgatc omit suos, which may suggest that the papyrus omitted aviou.
$\epsilon \pi a \rho a c \ldots \epsilon \tau \epsilon \nu$ is the reading of $\mathbb{N B} C^{*} D \mathrm{D}$ L W 1. orog. with the support of some minuscules and a

we do not know to what extent the nomina sacra were abbreviated in it. Abbreviation of ovpavoc, however, is not attested before c. AD 220 (BKT VIII $17=$ Rahlfs 974), see A. H. R. E. Paap, Nomina sacra (P. L. Bat VIII), 104-5, and is rare before the fifth century; no NT example is quoted in J. O'Callaghan, "Nomina sacra" in papyris graecis saeculi $I I I, 55-6$ and 78 . It is therefore almost certain that ovpavoc was written in full; in which
case there would hardly have been room to add кau before eirev, whether or not $\pi a \tau \epsilon \rho$ was abbreviated.

4 Iva $\kappa[\alpha \iota \circ \overline{\cup \bar{v}} \delta] 0 \xi[a c \eta$ : kappa and the spacing thereafter guarantee that this was the reading of the
pyrus. On abbreviation of vioc in its sacral usage see Paap, IIO-II2. There are three variants in the MSS
 cov סo cov $\delta o \xi a c \eta, \mathrm{C}^{(2) 9} \mathrm{~L} \Psi f^{13} 33 \mathrm{M}$, supported by q , some MSS of the Vulgate and $\mathrm{Or}^{\mathrm{pt}}$. The wording which apparently used in the papyrus seems not to be attested elsewhere
 supported by most latin MSS; D omits.

Therefore only W has the same reading, $\delta \omega c$ cuvt $\omega$, as the papyrus.
8 The traces are so slight that no reading can be suggested with confidence.
$\rightarrow$
I The same comment applies as to $\downarrow 8$.
2-4 The reading suggested is that of D , which is the only Greek MS to add ovкєть є $\epsilon \iota \epsilon \nu \tau \omega$ кос $\mu \omega$ ка $\iota$
 MSS have no addition. Since the reading in line 2 of the papyrus is clear, as is $\tau \eta$ ] $\rho$ ncov in line 5 , it is certain that the papyrus had some addition at this point. So little survives, however, and the traces in line 4 are so meagre, that the reading offered in the text is far from certain.
After $\epsilon] \mu$, in line 4 no more than two spots of ink survive. Presumably these are the remains of the firs two letters of $\pi a \tau \epsilon \rho$ (no doubt abbreviated, although no sign of a superscript bar survives).

6 After cov D again is alone in having some additional words: кal oтє $\eta \mu \eta \nu \mu \in \tau$ avт $\omega \nu \varepsilon \gamma \omega \in \nu \tau \omega \kappa \circ c \mu \omega$
povv avтovc $\varepsilon \nu \tau \omega$ ovouati cov. Whatever may be the case in the preceding lines, however, it is quite certain that the papyrus did not include this addition.


${ }^{6-7} \mathfrak{P}^{66}$ omits $\iota \nu a \ldots \eta \mu \epsilon \iota$, but a lectional sign after $\mu o c$ suggests that the words were probably added in the margin by a corrector. The omission is supported, however, by some Old Latin MSS, a b ce ffr${ }^{2} \mathrm{r}^{1}$ 4446 agrees with B $\Theta 579,700 . l 844$ all, supported by some Old Latin MSS (aur f), the Vulgate, and syh in adding $\pi a l$ be is bar over the nu which well be the remains of a rough

8 Only unidentifiable traces survive.
W. E. H. Cockle
4447. John xvii 23 -24; xviii $\mathrm{I}-5$

$$
6.2 \times 10.5 \mathrm{~cm}
$$

Two joining fragments comprise the foot of the page of a codex. The text is written in a handsome, medium-size, upright capital hand in a metallic ink, originally black but now tinged slightly brown. It is a practised hand and the letters are 3 mm tall. The left part of alpha is formed in a single sinuous loop; the diagonal sometimes has a pronounced concave swing to it and may run under the following letter, as in $\rightarrow 10$. Mu and ypsilon are written in a single movement without lifting the pen. The vertical
of phi leans slightly to the left and is the sole surviving letter which is not bilinear. The script bears a general resemblance to that of the scribe who copied Ezechiel in P. Chester Beatty IX -X, etc. $=$ OT 183, but the scribe of $\mathbf{4 4 4 7}$ is more controlled in his letter forms which are firmly bilinear. Kenyon commented on the Beatty papyrus "the date of the manuscript may be safely placed not later than the first half of the third century", although Wilcken thought it might be as early as the second; Turner, The Typology of the Early Codex, Pennsylvania 1977, 181, assigned it to, the third century. 4447 can also be assigned to this century; the use of metallic ink is very unlikely at an earlier date.

The surface of the $\downarrow$ side is very rubbed and faded. The number of letters per line varies between 2I and 27, which suggests ro lines are missing at the top of the $\rightarrow$ side and that there were 23 lines to the column (assuming a normal text). The bottom surviving margin is 2.5 cm . According to Turner's rule of thumb (for which see 4445, intro.) the upper margin is likely to have measured about 1.66 cm . Since 12 lines of text occupy a height of 7.4 cm , the written area of 23 lines would have occupied a height of about 14 cm , and the total height of the page would have measured $c .18 .5 \mathrm{~cm}$. The width of I3 letters on side $\rightarrow$ occupies 5.5 cm , so that the longest restored line on this side, which has 27 letters, would have occupied $c$ II. 5 cm . The surviving left-hand margin on side $\downarrow$ is 1.4 cm wide. If the right-hand margin matched it, the minimum width of the page would have been $c .14 .5 \mathrm{~cm}$. This falls within Turner's Group 9Aberrant I 'Not Square'.

 punctuation. There is one instance of itacism in $\downarrow_{5} .4447=\mathfrak{P}^{108}$
$\downarrow$
] $\varphi$.[
].
$v$ [av
[๐८ [v $\omega c![\nu \quad \tau \epsilon \tau \epsilon \lambda \epsilon \iota \omega \mu \epsilon \nu 0 \iota \epsilon \iota \subset \in \nu \iota \nu \alpha]$ $\gamma \epsilon \iota \nu[\omega с к \eta$ о кос $\mu$ ос оть $\subset v \mu \epsilon \alpha]$ $\pi \epsilon \subset \tau[\epsilon \iota \lambda] a \subset$ ка! $[\eta \gamma a \pi \eta<\alpha \subset \alpha v \tau o v c]$ $\kappa \alpha \theta \omega \subset \epsilon \mu \epsilon \eta[\gamma a \pi \eta<\alpha c \pi \alpha \tau \epsilon \rho$ o] $\delta \epsilon \delta \omega[\kappa] \alpha \subset \mu \circ \iota[\theta \epsilon \lambda \omega \quad \iota \alpha$ o $\pi \sigma v \epsilon \iota]$ $\mu \iota \epsilon \gamma \omega$ какєь $\varphi$ [о८ $\omega \subset \iota \nu \mu \epsilon \tau \epsilon \mu о v]$ $i \nu[a \theta] \epsilon \omega \rho \omega c![\nu \quad \tau \eta \nu \delta o \xi \alpha \nu \tau \eta \nu \epsilon]$ $\mu \eta[\nu] \eta \nu \in \delta[\omega \kappa \alpha c \mu \circ \iota$ оть $\eta \gamma a \pi \eta]$ сас $\mu \in \pi \rho \circ \kappa[\alpha \tau \alpha \beta о \lambda \eta \subset$


[ $\tau \omega v$ avtov o ovv เov $\delta a c] \lambda a \beta \omega \nu \tau \eta[\nu]$
[стєє $\rho a \nu \kappa \alpha \iota \epsilon \kappa] \tau \omega[\nu \alpha \rho \chi]!\epsilon \rho \epsilon \omega \nu$

[ $\tau a \iota \in \kappa \in \iota \mu \epsilon \tau]$ ] фavшv каı $\lambda \alpha \mu \pi \alpha$
$[\delta \omega \nu \kappa \alpha \iota \quad \circ \pi \lambda] \omega \nu \overline{\overline{\eta c} \delta \epsilon \epsilon \delta \omega c}$
This fragment contains part of the last chapter of the Gospel. Apart from $\mathfrak{P}^{59}$ (P. Colt Nessana II 3), which preserves fragments of verses 18-20 and 23, it is the first papyrus in which these verses have appeared and the first from Egypt. It is also the earliest witness. $\mathfrak{P}^{59}$ is not earlier than the seventh century. $\mathbf{4 4 4 8}=\mathfrak{F}^{109}$.

The text is written in carbon ink in a very plain, upright, unligatured round hand 4 mm high; letters sometimes touch but there is no linkage. Iota rises above the line and rho falls below it. Theta has a cross-bar extended on either side, a characteristic also to be seen in $\mathfrak{P}^{66}$ (P. Bodmer $\mathrm{II}=G M A W^{2}$, Plate 63 ), which is usually assigned to the first part of the third century. The hand is an inept one of literary pretensions fashioned with a blunt pen. It bears a general resemblance to $\mathfrak{P}^{66}$, but the restricted range of letters present precludes a detailed comparison across the alphabet. No nomina sacra survive but $\overline{\theta v}$ and $\overline{\iota c}$ have been supplemented in $\rightarrow 6$ and $\downarrow 8$. There are no breathings or punctuation. Two further lines of text would have been needed to complete the Gospel, but there are no traces of a coronis surviving in the lower left margin of $\downarrow$.

If we assume a normal text, the amount missing between the two sides would have occupied 16 or i7 lines. This would give a page of some 26 lines with approximate measurements of 12 by 24 cm , and so the codex would fall into Turner's Group 8.
 $\omega c i \nu \in \nu \kappa \alpha \theta \omega \tau \tau \mu \epsilon \iota \subset \in \nu$. Since there are several variants and the traces are so exiguous, it would be unwise to suggest any reconstruction of the text at this point.
 too long, but the papyrus could have read either $\iota v a$ or кat.
6 ทyanncac: so most MSS, although $D$ and some minusc
reading of the papyrus. $\mathfrak{P}^{50}$ and $\mathfrak{B}^{66}$ arc cqually uncertain. 7-8 o] $\delta \in \delta \omega[\kappa]$ ac: so $\mathfrak{B}^{60} \aleph$ B D W © $\Theta \Psi 579 p c$, with
the support of syeh. . most Latin MSS unclear, since we do not know whether marєि (or $\pi$ arn , ove $\delta \in \delta$ कккас. Which was the reading of 4447 is 9 ধүш is omitted by $\mathfrak{P}^{666}$.
10 $\theta$ ] єwpuci[ $\left[\right.$ : this is the rcading of nearly all MSS, $\Re^{60}$ and $W$ b
${ }_{10-11} \mathrm{D}$, with the support of sys , omits $\tau \eta \nu \epsilon \mu \eta \nu$.
$11 \in \delta[\omega \kappa a c$; so B K N $\Gamma \Theta 209$ al and Clement; $\kappa$ A C D and most other MSS read $\delta \epsilon \delta \omega \kappa a c$.
$\rightarrow$

 neithcr of the others can be ruled out.

4-5 It is certain that the papyrus did not follow B in using the word order $\mu \epsilon \tau \alpha \tau \omega \nu \mu \alpha \theta \eta \tau \omega \nu$ autov $\epsilon \kappa \epsilon$.


 $\mathfrak{F}{ }^{60}$ A B C $\Theta \Psi \Psi^{0250} \mathfrak{M}$, supported by sy ${ }^{\mathrm{h}}$ and some Latin MSS (aur ${ }^{\circ}$ e vg).
 from most Latin MSS; $\mathfrak{P}^{60}$ has $] \theta \epsilon \nu \in \xi \omega \omega \kappa$ [, cf. procedens foras dixit in f . The reading of the papyrus is more or less guarantecd by the spacing and the surviving nu.


$$
\epsilon \kappa \tau \epsilon] \varphi \in[[c]
$$

xxi. 18
[rac $\chi \in \iota \rho a c$ cov] кац $\alpha \lambda \lambda o \iota$ [ c. I2 ]ovcly ce $[$ onov ov $\theta \epsilon \lambda \epsilon \iota c \tau]$ ovto $\check{\delta} \epsilon$ $[\epsilon เ \pi \epsilon \nu \subset \eta \mu \alpha \iota \nu \omega \nu \pi \circ \iota \omega] \theta \alpha$ [ $\nu \alpha \tau \omega$ סо $\alpha \propto \epsilon \iota \tau \operatorname{\tau \nu } \overline{\theta \nu} \kappa \alpha \iota]$ [ гочто єוтшン $\lambda \epsilon \gamma \epsilon \iota \alpha v] \tau \omega$ ако $[\lambda o v \theta \epsilon \iota \mu о \iota \in \pi \iota c \tau \rho a \phi] \epsilon \iota \subset$ o. [ $\pi \epsilon \tau \rho \circ \subset \beta \lambda \epsilon \pi \epsilon \iota \tau o \nu] \mu \alpha \theta \eta$ $[\tau \eta \nu$
$\downarrow$
$\mu[\epsilon] \varphi \epsilon[\iota \nu \epsilon \omega<\epsilon \rho \chi \circ \mu \alpha \iota \tau \iota]$

 $\rho \iota \tau o v \tau[\omega \nu \kappa \alpha \iota$ о $\gamma \rho a \psi \alpha c]$
$\tau a v[\tau \alpha \kappa \alpha \iota$ о८ $\delta \alpha \mu \epsilon \nu$ oт $]$
［ $\alpha \lambda \eta \theta \eta<$ avтov $\eta \mu \alpha \rho \tau v \rho \iota \alpha]$
$\epsilon \subset[\tau \iota \nu \quad \epsilon \subset \tau \iota \nu \delta \epsilon \kappa \alpha \iota \quad a \lambda \lambda a]$ $\pi о \lambda \lambda\left[\begin{array}{ll}a & a \\ \epsilon \pi o \iota \eta c \epsilon \nu & \circ \\ \iota< & a\end{array}\right]$ $\tau \iota v \alpha[\epsilon \alpha \nu \gamma \rho \alpha \phi \eta \tau \alpha \iota \kappa \alpha \theta \epsilon \nu]$ ov $\delta$［
$\rightarrow 2-3$ The MSS are divided between singulars and plurals，with the following variants：



a入doı 弓 Weovelv ce kal amoucovelv ce $\aleph^{1}$



aג入ol $\epsilon$ s cocouct kal arayouct $c \in \mathrm{D}$
 Mss quoted above and with $\mathfrak{P 5 9}$ ，which reads $]$ addor $[ \pm 14]$ Towoul．It must therefore have read plural
verbs．All the above variants，however，are too long for the space available in line 3 ．Did the papyrus perhaps


4 No doubt the papyrus read onov with all MSS except Sinaiticus，which，before correction，read oca． There is a problem at the end of this line，where two strokes of ink are visible after $\delta \in$ ．They look like parts of two uprights and it would be easy to read nu，which，however，is nonsensical．This ink cannot be
part of $\epsilon \epsilon \pi \epsilon \nu$ and may be just an error which the writer then cancelled． part of $\varepsilon$ єाT $\epsilon \nu$ and may be just an error which the writer then cancelied． Old Latin MSS．$\delta \in$ is included by $\mathfrak{B}^{59} \aleph \mathrm{D} \Theta \Psi f^{1.13} \mathfrak{M}$ ，supported by $\mathrm{d} f$ supported by d f sy ${ }^{\text {h }}$ pbo and bo
 $\Psi f^{13} 33 \mathfrak{M}$ ，supported by most Latin MSS and sy ${ }^{\text {pht }}$ ；D has $\pi \rho o \grave{c} \epsilon \in$ only．
Origen，against the bulk of the MSS，which omit kat the reading of the papyrus，with B C W supported by 4 The MSS are divided between кa，о үpaluac，к been the reading of the papyrus． must have had this order of words with B C＊W W
 M，nor $\in \in \tau \in v$ avtov $\eta \mu$ uaptvpla with D 12211 ，supported by aur and d．
oncev，either of which could have

W．E．H．Cockle
4449．Epistle of James，III i3－IV 4 ，IV $9-$ V i

$$
7.5 \times 19 \mathrm{~cm}
$$

Part of a leaf of a codex preserving the upper margin and 25 lines of text on each side，the lower portion of which has been assembled from many small pieces and is
more fragmentary．Calculation suggests that eleven or twelve lines have been lost alto－ gether at the foot of the first side．

Page numbers survive in the upper margin， $5=6$ along the fibres and $\zeta=7$ across the fibres．The surviving side margin on each side is thus the outer margin．For 6 and 7 to be the two sides of the same leaf，the codex must have begun with an unnumbered cover page，cf．X $1229\left(\mathfrak{P}^{23}\right)$ ．The TLG word－count for the Epistle is 1857 ，which would require roughly 9 pages in the format of $\mathbf{4 4 4 9}$ ，making a slim quire of just three bifolia if all sheets were laid as normally with horizontal fibres upwards．The combina－ tion of 6th page horizontal fibres and 7 th page vertical fibres could theoretically be achieved in a larger single quire only if the sheets were laid either with the vertical fibres upwards，which is abnormal，or with horizontal and vertical fibres upwards altern－ ately；but single quire codices were normally composed without alternation in the fibre direction of the constituent sheets（E．G．Turner，Typology of the Early Codex $6_{5} \mathrm{ff}$ ．）．The quire with this Epistle might also have been the first of several quires making up a larger codex，but the calculated original dimensions（roughly 29 cm high by is broad） would put the codex in Turner＇s Group 8 （ibid．pp．20－1）where a single quire was the predominant format（ibid．p．24）．Nevertheless James often stood as the first of the Catholic Epistles in our MSS（ヘ A B，etc．；see B．M．Metzger，The Canon of the Nere Testament 299）．

The confident informal hand is slightly sloping on page 6，rather more upright and more rounded on page 7 ．It is broadly similar to $\mathbf{4 4 4 5}$ in the present volume， assigned to the third century．It is not an easy hand to date；the frequently extended kappas（especially on page 6）perhaps point towards the fourth century．We find this feature in a more pronounced form in the later LXIII 4400.

There are no accents．Final nu at line－end is often represented by a supralinear bar．Diaeresis is frequent；a diastole occurs once（ $a \lambda^{\prime} \lambda a$ ）．A short space often serves as punctuation．The nomen sacrum for кv́pooc occurs twice．The text contains several itacisms and at least two careless errors $(\rightarrow 9, \downarrow 8$ ；cf．also $\rightarrow 5$ ）．There are no koilema joins．The upper margins measure $c .2 \mathrm{~cm}$ ，the outer margins c． 1.5 cm ．

Parts of the Epistle are preserved in four other papyri and in some parchment fragments（Aland $\mathfrak{B}^{20}, \mathfrak{P}^{23}, \mathfrak{F}^{54}$ and $\mathfrak{P}^{74}$ and or66，or73 and 0246，＝Van Haelst nos． 70，489，543－7，note also Van Haelst no．rogo）．The four papyri are collated in W．Grunewald，Das Neue Testament auf Papyrus，I．Die katholischen Briefe（Berlin，1986）． Three of these papyri are from Oxyrhynchus（Aland $\mathfrak{P}^{20}, \mathfrak{P}^{23}$ and $\mathfrak{P}^{54}=$ Van Haelst nos． $543,54^{6-7}$ ）but they are not related to 4449．Only $\mathfrak{B}^{74}$（ $=$ P．Bodmer XVII）， assigned to the sixth or seventh century，overlaps in part with 4449.4449 is the earliest known witness to these verses of James．

The supplements in the transcription below are from the 27 th edition of Nestle－ Aland，Novum Testamentum Graece（Stuttgart，1993）．Any exceptions are indicated in the apparatus criticus，which is based on this edition with occasional further information from Tischendorf，editio octava critica maior，the Beuron Vetus Latina，and Grunewald．

Symbols used for citing manuscripts follow the practice of Nestle－Aland ${ }^{27}$ ．On the text of the Epistle in general see the three volumes of K．Aland，Text und Textwert der griechischen Handschriften des Neuen Testaments（Berlin，1987）．

4449 has been assigned the number $\mathfrak{P}^{100}$ ．
［ $\gamma \alpha$ avтov $\epsilon \nu \pi \rho \alpha] ข \tau \eta \tau \iota \operatorname{co\phi } \iota[\mathrm{c}] \quad \epsilon_{\iota} \delta[\epsilon] \zeta_{\eta} \lambda_{0}-$
$[\delta \iota \alpha$ v $\mu \omega \nu \mu \eta \kappa] a \tau \alpha \kappa \alpha v \chi a c \theta \in \kappa \alpha \iota \psi \in v \delta \in v$


［ $\lambda$ ос каь єрı $\theta \epsilon \iota \alpha$ є］кєь акастасıа каı таv
1о $\quad[\phi \alpha v \lambda o v \pi \rho \alpha \gamma \mu a] \eta \delta \epsilon \alpha \nu \omega \theta \epsilon \nu \operatorname{co\phi } \iota \alpha \pi \omega$
$[\tau о с$ картос $\delta \in \delta \iota]$ каьо［cv］$[$［ $\eta]$ с є $\epsilon є \rho \eta \nu \eta$

［aıтєıӨaı v $\mu \alpha c]$ aıтєıтє $\kappa[\alpha i]$ ov $\lambda \alpha \mu \beta \alpha \nu \epsilon$

［ $\tau 0 v \overline{\theta v} \epsilon \subset \tau \iota \nu$ oc $\epsilon a v$ ovv $\beta$ ov $\lambda \eta \theta \eta] \phi_{i} \lambda_{0}[c]$
$\downarrow$
$\epsilon \iota c \pi \epsilon \nu \theta$ oc $\mu \epsilon \tau a \tau \rho a \pi \eta[\tau \omega$ каı $\eta$ Ха $\rho a]$
Io
$\epsilon \iota<\kappa a \tau \eta \phi \iota a \nu \quad \tau a \pi \epsilon \iota \nu \omega[\theta \eta \tau \epsilon \epsilon \nu \omega \pi \tau]$
II

$a \delta \epsilon \lambda \phi o v \eta \kappa[\rho] \epsilon \tau \nu \omega \nu \tau[o v a \delta \epsilon \lambda \phi o v a v]$
тоv катала入єь vouov ка［ı крıvєı vouov］


то крıтךс о $\delta v v а \mu \epsilon v o c$［сшсаı каı атодє］
cal cv $\delta \in \tau \iota \epsilon \in \iota$ о крıv $\omega[\nu$ тov $\pi \lambda \eta c \iota o v]$
arє $\nu v \nu$ oo $\lambda \epsilon \gamma \sigma \nu \tau \epsilon \subset$ o $\eta[\mu \epsilon \rho o \nu \eta$ avpl］
आорєvсои $[\epsilon \theta a$ єıc $\tau \eta \nu \delta \epsilon \tau \eta \nu$ тольь

ovк $\epsilon \pi \iota[\mathrm{c}] \tau a c \theta \epsilon[$［о $\tau \eta \subset$ avpюov $\pi o \iota a]$




 $\chi a c \theta \epsilon \in[\nu \tau \alpha \iota c] a[\lambda] a \zeta \rho \nu[\epsilon \iota a \iota c \quad \nu \mu \omega \nu \pi \alpha]$ са ка［vхך८८］то！avтך［ $\pi о \nu \eta \rho a ~ \epsilon \subset \tau \tau \nu]$
$\epsilon![\delta o \tau \iota$ ovv］ка入оv $\pi \circ![\epsilon \iota \nu$ каı $\mu \eta \pi о \iota]$
$250 v[\nu \tau \iota$ a $\mu \alpha \rho \tau \iota \alpha$ avт $\omega \in c \tau \iota \nu$ ayє $\nu v \nu]$
${ }^{\circ}[\iota$
$\overrightarrow{3}$ The papyrus did not add $\alpha p a$ before $\zeta_{\eta} \eta$ dov with $\mathrm{A} P \Psi$ and some minuscules．
 Bohairic and most Old Latin and Vulgate MSS．
$5 \kappa]$ ãaкаuхас $\theta \in$ ：not каvхас $\theta \in$ with A 056．or 42 al．
written $\psi e \delta \in v$ by mistake，then attempted to insert $v$ after the fupralinear dot over $\delta$ ．The scribe may have號 $v$ after the first $\epsilon$ ，signalling the error with a dot over $\delta$

with $\boldsymbol{\aleph}^{*}$ ，supported by syp．
${ }_{6-7}$ Not $\eta$ copra aut $\eta$ with C and some minuscules．

9 акастаса: haplography for акатастастa, which is the reading of all MSS. The papyrus did not add before this with ${ }^{\wedge} \mathrm{A} 33.8 \mathrm{I} p c$, with support from syp.
13 Spacing indicates that the papyrus did not add $\epsilon \rho \gamma \omega \nu$ before $\alpha \gamma \alpha \theta \omega \nu$ with C and several minuscule. кau betore avvтокрєtoc with K L 049. 056. o142. 69. 322. 323 M, against $\uparrow$ A B C al.
 ${ }^{4} \aleph^{c}$ A B C $a l$, with the support of the Sahidic. K $049 \mathfrak{M}$ add $\tau \eta c ; *$ beforc correction and $\Psi$ read of for $\tau \eta c$

 17 The supplement seems short for the space, but there are no recorded variants. ${ }_{21}^{7}$ The supplement seems short for the space, but there are no recorded variants.
with the support of the Bohairic and Syriac versions and the Old Latin MSS, read каи ovк exeve.
 minuscules; $\mathfrak{P}^{74}$ is reported as reading aıtect]e $\delta[\epsilon$.
 immediately above. Even if it were intended, we may note Blass-Debrunner-Rehkopf, Grammatik des neutestamentluchen Criechisch (1979) $\S 316$, where it is considered that the alternation of the active/middle of aire $\omega \omega$ in
this passage is purely arbitrary, although there can be a difference of meaning 24 .
 25 The supplement at the start of the line seems long for the space, but there are no recorded variants. тov ко[cноv: there is no room for the addition of qourov, which is found in $\aleph$, supported by the Vulgate and the Syriac
$\downarrow$


тou रv: so L o49. 056 M; $\quad$ ov is omitted in К A B K P $\Psi$ al.
$5 a \lambda \lambda \eta \lambda \omega \nu a \delta \in \lambda \phi 0[$ : the reverse order is found in $\mathrm{A} \Psi$ and some minuscules.
0 suppored by the Old L 8 vov: haplography for vouov.
Spacing strongly suggests that the papyrus followed $\mathfrak{B}^{74} \mathcal{N}$ A B L o49 al in reading ovk $\epsilon 6$, with the support of the Vulgate and some Old Latin MSS, and did not read ovкєть for ovк, with K P $\Psi$ о56. oI 4 and a number of minuscules, supported by a few Old Latin MSS.
9 The trace after єє $\tau \omega$ rules out omicron; therefore the papyrus omitted o before vouo $\theta \epsilon \tau \eta$ c with $\mathfrak{P}^{74}$ $P$ and a few minuscules. o is included by אA $\Psi$ and the majority of MSS.
 Catin versions, against its omission in $\mathfrak{F}^{74} \mathrm{~K}$ L $049 \mathfrak{N}$
II The papyrus supports $\mathfrak{B}^{34} \mathrm{KABP}$. and several minuscules in reading o kpovev, rather than o крve $\epsilon c$ with $\mathrm{K} \mathrm{L} \mathfrak{M}$.
the papyrus
he future; the Old [ ${ }^{1} 4$ тon $n=0 \mu \varepsilon v$ : the papyrus agrees with B P and several minuscules, supported by all the Latin MSS against $\mathbb{K}$ A K L $\Psi_{33} \mathfrak{M}$, which read $\pi$ oı $\eta c \omega \mu \epsilon \nu$,
B P, ${ }^{\epsilon \epsilon[\epsilon \epsilon \epsilon] \text { few }}$ vav[rov: the papyrus did not omit $\epsilon \kappa \epsilon \iota$ with $\mathrm{A} \Psi$ and some minuscules. Whether it supported P, a few minuscules and most Latin MSS in omitting eva after evvaurov is unclear.
in reading $\kappa \epsilon \rho \delta \eta с о \mu \epsilon \nu$, as against $\epsilon \mu \pi \rho \rho \epsilon \nu с \omega \mu \epsilon \theta a$ and $\kappa \epsilon \rho \delta \eta с \omega \mu \epsilon \nu$, the reading of most MS agreed with them 16 The papyrus is likely to have read either $\tau 0 \tau \eta c$ avpov or $\tau a \tau \eta c$ avpov most MSS.
the MSS are divided berween the three variants.

16-17 $\pi o u a \gamma_{a \rho} \zeta \omega m$ : this exact wording does not appear to have occurred in any other MS. Attested variants are
 Vulgate; similarly $\Re^{7^{4}}$ reads ] ya.. $\eta$ [.

тогa $\eta$ 弓 $\omega \eta$ : $\aleph^{*}$ and several minuscules, with the support of some Old Latin MSS, sy ${ }^{\mathrm{h}}$ and bo ${ }^{\text {mss }}$, тога $\zeta \omega \eta$ : B.
${ }^{17}$. We can be confident that the papyrus did not omit a a puc yap ecte with $\aleph$, but it is of no help concerning the other variants at this point.
 against the subjunctives found in $K L \Psi 33 \mathrm{M}$.
 of space.

Transcribtion in modern staff notation
Original a semitone lower

M. L. WEST

## IV. MAGIC, RELIGION AND ASTROLOGY

## 4468. Magic

$20 \quad 3 \mathrm{~B} .35 / \mathrm{C}(\mathrm{I}) \mathrm{a}$
$21 \times 27 \mathrm{~cm}$
Late first century
Part of an opisthograph roll containing a magic formulary. Each side preserves parts of two columns, the first column on the recto surviving for its full width. The upper margin is not preserved; the space above verso col. i is deceptive, cf. recto col. i and note the blank space below verso i 17 . The intercolumnar space on the recto is c. 2 cm , on the verso $3-4 \mathrm{~cm}$. Lower margins survive but of unequal depth below the different columns; generally $2.5-3 \mathrm{~cm}$ remain, but recto col. ii descends much deeper, leaving only 0.8 cm . There is a three-layer kollema join near each edge of the papyrus, the distance between them on the recto being 18 cm . The papyrus is a palimpsest, with scattered cursive traces of the original text still visible on the recto.

The text is mostly written in a good cursive of documentary type, sloping to the right, and assignable to the later first century AD. The lower part of recto col. ii (ll. I9 ff.) is more upright with fewer ligatures and appears to be by a different hand. The script of the verso, while the work of the same hand as most of the recto, is larger and more spaced out, resulting in fewer lines per column. The same hand was responsible for $P$. Leipz. inv. 429 , likewise a magic formulary, published by K. Preisendanz as PGM LII. The Leipzig papyrus comes from Oxyrhynchus and was obtained from Otto Rubensohn for the Leipzig collection in 1905 (information from Dr G. Karpp). It preserves parts of two columns written across the fibres; the other side is blank. From a photograph it has not been possible to confirm or deny that the Leipzig piece belongs to the same roll as 4468 . Both contain remains of hexameter verses (PGM LII 2-4, 4468 verso i). Nevertheless, there is no demonstrable direct textual link between the two. On the other hand, the fact that one side of PGM LII is blank, unlike 4468 , is not a reason to exclude a connection: magical papyri often contain blank spaces, left for adding drawings for example which were subsequently never executed. Preisendanz assigned PGM LII to the third century AD , but this dating must be rejected in favour of a much earlier one. A good parallel is PSI XII 1235, of $86-89$ (cf. BL VII 24I; plate in M. Norsa, Scritt. doc. XIVa). The presence of two hands in $\mathbf{4 4 6 8}$ would be interesting as possibly indicating that this magic manual was produced in a copying centre.

The preserved portion of the formulary divides into various sections. Recto, col. i: logos of an incantation of aggressive magic, probably erotic. Col. ii: various spells of uncertain nature. Verso, col. i: lines $1-17$, charitesion (remains of hexameters); 18-26, perhaps agrupnētikon (remains of hexameters). Col. ii: $\mathrm{I}-10$, erotic charm; II-I4, agrupnētikon; 15-19, somniferent charm; 20-25, phylactery, with a logos in Egyptian.

The text is articulated by means of interlinear spaces, paragraphoi (forked at recto col. ii 8), eisthesis and ecthesis. There are no accents, breathings, apostrophes or diaer-
eses. Spaces denote strong pauses and are regularly left before and after magical words, and also in the Egyptian section (verso col. ii 23 ff .). Iota adscript is employed inconsistently, on one occasion in error (verso col. ii 19). 个 stands for $\delta \in \hat{i} v a$ and $\delta \in \hat{\nu} \nu o c$, and $\uparrow \uparrow$ occurs for $\delta \in i v a \delta$ eivoc. Note that these occur on both sides.

The following abbreviations are used: $L L=\mathrm{J}$. Assmann, Liturgische Lieder an den Sonnengott (MÄS r9, 1969); König=idem, Der König als Sonnenpriester (ADAIK 7, 1970); $\ddot{A} H G=$ idem, Ägyptische Hymnen und Gebete (Zurich-Munich 1975); RuA =idem, Re und Amun (OBO 51, 1983); Sonnenhymnen=idem, Sonnenhymnen in thebanischen Gräbern (Mainz 1983).

Recto
Col. i

| c. 30 |  | ]. c ädкı [ $\mu$ ос |
| :---: | :---: | :---: |
| [ .].... [ | C. 25 |  |
|  | C. 17 | ]cac $\tau 0 \cup \grave{\text { c }}$ ó $\phi \theta a \lambda$ [ $\mu$ ò̀c] |



 $\dot{\eta} \mu[\hat{\epsilon}] \rho \alpha\left[\begin{array}{ll}\text { c. } 12\end{array}\right]$. oî $\delta \alpha \dot{\alpha} \operatorname{cov} \tau \grave{\alpha}$ oैvó $\mu \alpha \tau \alpha \kappa(\alpha i) \tau \eta ̀ v \pi o \rho \eta ́-$





























I ]. c, upper right arc of a circular letter.
2 ]. .[, first, foot of an upright; second, circle, probably o; third, lower arc of a circular letter; fourch, point at line-level.

6 [.].[.]. [, first, short oblique rising from left to right; second, horizontal above the letter-tops. $\uparrow \uparrow$
7 [c. 12]., up-facing arc at middle height suitable to tail of $\alpha$ or tongue of $\epsilon$. ks
$7-8$ l. Topeíav

${ }^{15} 1$. ék
very tiny trace.$\rho \omega$, the end of a horizontal joining the loop of $\rho$; below, on the edge at line-level, perhaps
I. $\frac{\alpha}{19}$. [, first, the very end of a horizontal touching $\alpha$ at two-thirds height; after $\alpha$, an angle at line2. thermed by an oblique sloping down from the left and another sloping down from the right (cursive $\varepsilon$ or
$\tau$ ?); then, a small up-facing arc at mid-letter level (if the preceding letter is $\epsilon$, it could be its tongue).
21 1. ếr coô.
$22 \dot{\xi} \pi[$ [..]. ac, horizontal level with letter-tops joining the loop of $\alpha(\gamma, \tau, c)$
25 1.,
29 介
21
33 1. ávoís $\omega$.
34 1. "Oсяpıc, Staкıveìrau.
34 o ${ }^{2} \epsilon$. [p, high trace. ]. .c. [, between lacuna and c scattered ink; after c probably left-hand part of a circle (o?).
${ }^{36}$ ]. ôv $\tau \epsilon$, the trace is suitable to loop of rho
37 Col. ii

[^0]$\epsilon \ddot{\ell} \delta \omega \lambda \alpha$［
$\nu \omega \nu \tau \alpha![$
$\stackrel{\rightharpoonup}{\epsilon} \nu \tau \hat{\eta} \mathrm{c}$ ．［
$\underset{\sim}{\eta} \mu \epsilon ́ \rho \alpha[$
$\chi \rho[$
$\lambda \alpha[$
a．［
$\alpha v . \eta[$
$k(\alpha i) \nu o$ ．［
．．［
［ ．$\beta$ ．.
o．［
$\epsilon \pi i \kappa \alpha \nu$.
$\pi \rho o ̀ c ~ \delta \eta[$
$\omega<\tau \alpha \nu \epsilon$［
$\rho a!, . . \nu[$
$\mu \epsilon ́ \lambda_{l} \eta \nu$ ．［
є́ $\varphi \eta \mu \epsilon[$
＂Oceıpıv ，［
$\epsilon$ є่ $\pi \omega \delta \dot{\eta} \nu$［
$\kappa \alpha \nu \theta \rho \rho[$
kai ave ．［
$\pi \alpha \subset \tau$ ．．
$v \in c^{\prime} v^{\prime} \theta$ ．［

## $\kappa \nu \eta \ldots[$

$\theta[$
．
$\kappa$ ．［
${ }_{12} \alpha v, \eta[, \gamma$ or $\tau$ ．
13 vo．［，perhaps $\eta$
16 ．［，horizontal level with letter－tops，$\tau$ probable
${ }_{17} \dot{\beta},[$ ，point at mid－letter level．
${ }^{1} 80$ ．［，oblique descending from right to left $(\lambda, \mu)$
19 èmi каע．［．$\theta$ or $\epsilon$ ．
$23{ }_{20}{ }_{2} \mathrm{I}$ ，thin trace at two－thirds height．
25 1．＂Ocipw．［，left side and base of a circlet level with the letter tops．
$29 \pi a c \tau$ ．［，scattered ink．
$30 \nu \in c^{v} v$ ．The raised upsilon seems too strong and distinct to be from the washed－out text．It seems
to be by $\mathrm{m}^{1}$ rather than by $\mathrm{m}^{2}$ ．After $\theta$ scattered ink
$3_{1}$ ukv,$k[$ ，top of upright；part of upright．
33 ．$[, 7$ ？？？
$35 \kappa$ ．［．left side of a circular letter（o？）．

Verso
Col．

Пхоиєขа Кота́vŋс

$\pi \rho]$ óccuтov каì đápıv


］$Z \in \hat{0}$ кv́ठıcтє $\mu \epsilon ́ \gamma \iota c \tau \epsilon \kappa(\alpha i)$

$\left.{ }^{2} A \varphi \rho \circ\right] \delta \in$ íт $\eta$ харıтоסóтєє $\rho \alpha$ קа $\beta \rho \alpha \imath$
］$\overline{\mu о v<\alpha \iota} \overline{\epsilon \epsilon о \beta a \zeta \alpha \gamma \rho \alpha}$
го ］．$\chi \alpha \rho \iota \tau \omega \nu$ ảvá $\mu \epsilon c \tau о \iota \delta \iota \alpha \nu a$
］．．［．］$] \rho \alpha$ § ¢ро́cov $\beta a ́ \lambda \lambda о \nu \tau \epsilon c$

l甲v $\eta$ каi ảто̀ үаíךс
］oc ұє́ovса ov̀т $\omega \subset$ ка̉ ү⿳亠
］．$v \delta \rho o ́ c o \nu \chi \rho \epsilon і ́ \rho \mu \alpha \iota \tau \varrho \varrho \epsilon$
］$\delta \omega \rho \eta ́<\alpha \tau \epsilon ́ \mu о \iota \chi \alpha \rho \iota \tau \eta ́ c \iota \alpha$
］$\tau \grave{\eta} \nu \delta(\epsilon \hat{\imath} v a) \delta(\epsilon \hat{\imath} \nu \circ c)$ ．
（vac．）

］$\dot{\epsilon} \pi i \theta \in \epsilon \subset \tau$ тท̀v $\dot{\alpha} \rho \iota c \tau \epsilon \rho \alpha ́ \nu$ cov

## $\lambda] \epsilon ́ \gamma \in \bar{\gamma} . \lambda о ́ \gamma о с$ ．

」 $\mu \dot{\eta} \tau \eta \rho \tau^{\prime} \dot{\alpha} \nu \theta \rho \omega^{\prime} \pi \omega \nu \overline{\nu l a v a i}$



］．［．．］．aıva éc őчıс

81．Aфpooit
io ］．．，only mere specks at letter top level．
iI ］．．．［，point at line－level；top and foot of an upright．
12 ．$V$ ，first，horizontal level with the letter tops，from both ends of which two uprights descend，the
I3 ］$\phi v . \eta, \gamma$ ？$\tau$ ？
$\left.{ }^{13}\right] \phi \nu, \eta, \gamma ?$, ？
${ }_{1} 4$ Horizontal line－filler at end．
15］．$u$ ，top of a descender from right to left，thick enough to represent the junction of two strokes，i．e．
$\eta, \nu, \pi$ or ligature with iota．1．रpiopal．

| 17 |
| :--- | :--- |
| 18 | ．,$\eta$ or $\nu, 1$ cautóv．

24 ckod．［ foot of an upright descending well below the line－level（ $t, \rho, \phi, \psi$ ）．
24 ckod．［，，loot of an upright descrnding well below the line－
$25]$ ．．［，points of ink at mid－letter level on projecting fibres．
］．aiva，firss，a point of ink level with the letter tops；second，the right part of the loop of $\rho$ or base and cond oblique of $\delta$ ；instead of $a, \xi$ possible．
obıc，cap of final c extended as filler－stroke．
Col．ii
［ c．I4 ］．$\rho . \pi \nu \downarrow a \delta t o[$
$\delta \alpha, \alpha[\quad$ c． 8$] \overline{\iota \alpha \nu \alpha \iota} \overline{\nu \epsilon}[$
$\beta \alpha[.] \iota[$ c． 5$] \pi \rho o ̀ c \tau \grave{\eta} \nu \delta(\epsilon \hat{\imath} \nu \alpha) \delta(\epsilon \hat{\nu} \nu \circ c) \tau[$
$\alpha v ่ \tau \hat{\eta} \iota\left[\begin{array}{c}\text { c．} \\ 5\end{array}\right] \ldots . .[.] \kappa(a i) \dot{a} \gamma \rho v \pi[\nu-$
5

เо
$\theta a c$ к（ai）$\pi \alpha$ ．．．$\rho$ ọc $\theta$ èc $\pi \rho$ ．［
$\mu \grave{\eta}$ éc $\theta \epsilon \iota \circ, \ldots(\alpha i) \pi \epsilon \iota \downarrow \hat{\omega} \subset \alpha, \mu[$

vauc סè ó $\delta \in i ̂ v a![c] \quad$ c． 4 ．．c $\omega$［
$\lambda \alpha \mu \omega \iota \dot{\omega} \subset \pi \alpha$ ．［．］$] \nu=\nu \omega \delta \in![$
$\left.K v \pi \rho o^{-}\right]$

## 

$\pi \rho o ̀ ~ \pi \alpha \dot{\alpha} \nu \tau \omega[\nu \dot{\alpha} \gamma \rho] \cup \pi \nu \eta \tau \iota \kappa[o ́] \nu^{\circ} \quad$［

$\kappa \alpha \theta[$ c．I5 ］． ca ［
$\pi o \iota \eta\left[\begin{array}{ll}\text { c．} 6\end{array}\right] .[$

Водхосә日 Пата日 С $\eta$ O а．［
$\overline{\epsilon \rho \eta \chi^{\iota}}[\alpha] \overline{\rho \alpha} \overline{\alpha \rho \rho \alpha \rho \alpha \rho \alpha} \kappa \alpha[$ $\overline{\delta \alpha \mu a \lambda} \overline{C_{\eta} \theta} \overline{C_{\eta} \theta} \overline{B_{0} \lambda \chi o c \eta \theta}$［ каӨєvסє́ $\tau \omega \iota$ ó $\delta i ̂ v a ~ \delta(\epsilon i ̂ v o c) . ~[~$
 $\lambda \alpha \beta \omega ̀ \nu$［．．］vv $\dot{\omega} \mu \grave{\nu} \nu$ є $\pi \alpha \underset{\text { cov }}{ } \zeta \beta$［．

$\lambda \hat{o}^{\prime}\left[\gamma o c A_{i}^{i} \gamma\right] v \pi \tau \iota c \tau i^{\circ} \overline{a \nu \alpha \kappa} a \gamma \kappa[$
$\alpha\left[\begin{array}{lll}\text { c．} 7\end{array}\right] \varphi$ avк $\overline{\alpha \mu \alpha} \overline{\rho a \lambda \lambda}[$
［ ］．$\mu . \nu \tau \alpha \varphi \mu \nu \mu \nu$［
$2 \delta a \ldots$ ，lower part of oblique descending from the right；then probably $\lambda$
．［，possibly ］．．om［．
ecteool ．．horizontal at top level having below，on the line，the foot of an upright（probably $\tau$ ）；then， re right arc of a small circular letter，but very uncertain．
$9 \pi \alpha$ ． 1 ， ，scattered traces on damaged fibres，too confused for description；e very uncertain．
$9 \pi a$ ．．．Evov，after $\alpha$ point of ink at line－lcvel
I2 ］．of．［，first，lower part of an upright with foot just turning to left；$\tau$ preferable，$y$ not excluded； en，point at line－level．

13］．ca，faint traces of two uprights on prolonged fibres
19 1．$\kappa A \theta \in \nu \delta \dot{\epsilon} \tau \omega, \delta \in \tilde{\omega}$
25 ］$\mu$ ，first，tops of two verticals；third，point level with the letter tops，below which the surface is damaged：possibly ？
Recto，col．i
＇．．．brave ．．．from Zeus，sender of rain ．．．［you opened］your cyes［and there was light，you closed］your eyes and［there was］darkness for all the images，for all the forms，for all the colours ．．．for all your ．．．Come
to me，come to me，hurry，hurry，quick quick ．．．bleed NN daughtcr of NN this very day ．．．I know your names and your course in the sky，I know your forms too．You have a form among the quadruped animals， which is（？）the goat，your form among the sacred bird creatures is the phoenix，your form in the river is the black labeo，your form in the desert is the lion，your form on the earth is the scarab，your form among the plants is the sacred cardamum．Your city is Heliopolis．Dog－headed one（？），your name is eternity，your form among the quadrupeds is the bull，among the creeping things your name is the snake，your plant is the dill． The illustrious name because of you ．．．in the sky（is？）Olympus ．．．your name is：he who appears as Olympius，
in the ．．．at sunset the living and the dead ．．．all and all the plants and all the wingless creatures and all the travellers and those who are below ground（？）in the water．From you we derive life．When you opened your eyes you created（？）light for every form，from which it（viz．every form）draws life．When you appear，all are joyful；when you set，death comes and darkness comes，All（share？）in your gifts．Your name is：Sun，child， holy，Titanius，brave，the greatest，he who appeared from Zeus sender of rain．Come to me and hearken to me benignly，and let the gods and goddesses hearken to me．This very day shatter and make bloodless NN， daughter of NN．If you don＇t do it，I will go to Phagropolis and into the house of Benben and to Heliopolis， and rwill wist the bones of the sacred phoenix，the greatest，and every day I wil pour true oil on the true shaken beneath him ．．．where the four dog－headed ones ．．．

Rccto, col. i
$1-37$ Aggressive magic. The nature of the incantation is not made explicit, but the fact that it is directed gainst a woman ( $\tau \grave{\nu} \nu \delta \epsilon \hat{\nu} v a 6$ 6, 29) is a strong indication of erotic magic. The whole column is occupied by a logos, a prose hymn to the Sun. Structure: $1-2$ (cf. 25-6) epicleseis; $3-5$ (cf. 21-4) praises of the god; $5-6$ (cf. ${ }^{26-7}$ ) invocation; $6-7$ (cf. 28-9) petition; 7-8 argument: knowledge of the forms, names and course of the Sun; 8-17: the forms and names of the Sun; 18-24 praises; 25-6 (cf. $1-2$ ) epiclcscis; $26-7$ (cf. 5-6) invocation; $28-9$ (cf. 6-7) petition; 29 ff argument: threats against the god if he does not answer the request. (Wc adopt here the terminology proposed by J. Mr. Bremer, Greek Hymus, in 1.)
Most of the material has an unequivocal Egyptian background, while Greek elements are rather rarc
 hings Egyptian, see ad loc.); some clements, finally, could derive as easily from Greek as from Egyptian tradition. The problem of the origin of the hymn-or of its parts, if the text is not a unitary conceptioncomposition by a Greek knowledgeable of things Egyptian? or by an Egyptian who knew Greck? translation from an Egyptian original?) is real enough, but for a possible solution it will be necessary to widen the search, especially on the Egyptian sirs. ay havc been composcd (or translated) by a non-Greek
the section in which it ${ }_{1-2}$ Similar to $25^{-6}$.


 therefore that the text in $1^{1-2}$ was not identical in every respect with that in $2^{5-6}$.

3-4 The general context can seemingly be reconstructed on the basis of 2r-4 and three Egyptian parallels: (i) The Story of Ra and Isis: (Ra says) 'I am he who opens his eyes and light comes, who closss his eycs and darkness appcars' (transl. A. Piankoff, The Litany of $R e$ (New York 1964) 58 ); (ii) Metternich Stela
[8] 83 : 'When he (i.c. the Sun-god) opens his eye, the sunlight comes about. When he closes it, darkness comes about' (transl. J. F. Borghouts, Ancient Egyptian Magical Texxs (Leiden 1978) 71 no. 95); (iii) Esna III, 206, $5^{-6}$ : 'Un dieu sacro-saint va nâ̂tre aujourd'hui. Quand il ouvrira son oeil, la lumière sera; quand il le fermera, ce seront les ténébres' (transl. S. Sauncron, Les Jêtes religieuses d'Esna aux dermiers siedles du paganisme Esna V), Cairo 1962, 261). However, the surviving text seems to suggest that the reference should be to the original creation of light (the day) and of darkness (the night), rather than to the daily rhythm of day/night as in the three Egyptian texts. In this second direction I can only imagine two possibilities; (a) $2-4$ [ãoófac]

 E. Mayser, Grammatik II. 365 ; Blass-Dcbrunner-Funk, § 466.4), but кai before cкóтoc creates difffculty; at 23-4
 some other noun) is there sufficient space at the cnd of 3 , unless we are to suppose an unexpected projection into the intercolumnar space. Thercfore: either the scribe has seft out a noun in error ( advaqoc?) coordinated with ckóroc (for a probable omission cf. 24; perhaps also 16), or кaì should be climinated, or it links a participle with a finite verb (this can be parallcled, but would nt be $\left.k^{2}, 218\right)$.

 creation of light (see $21-2 \mathrm{n}$. below). Naturally, the daod, reference is again made to the initial act of the is that of the first night, not the 'Urfinsternis' which reigncd in the original Chaos before the creation (see


 does not sound quite natural. The sense is that at the closing of the god's eyes darkness enveloped the universc, word ('phantom', 'insubstantial form', 'idea', 'image of a god', 'constellation' (see LSJ s.v.)) would single out objectives which would be too partial and specific, not in accord with the two following terms. An approach
from an Egyptian vicwpoint may be more helpful, at least for $\epsilon \ell \delta \omega \lambda a$ and $\mu \circ \rho \phi a i$. Here, within a concept which is pantheistic by inclination even if not totally so, the idea of the god who manifests himself in a great multiplicity of forms (animals, human bcings etc.) is fundamental; see E. Hornung, Conceptions of God in Ancient Egypt: The One and The Many (Engl. transl. London-Melbourne-Henley 1983) 125 ff . If so, eit $\omega \lambda \lambda a$ and $\mu \circ \rho \phi a i$ hould correspond with two of the many words by which (with different shades of meaning which are by no Mensch als 'Bild Gottes' in Agypten, in O. Loretz, Die Gottebenbildlichkeit des Menschen (Munich 1967) 123-56). If there is coherence in the use of $\mu \circ \rho \phi \dot{n}$ between here and 8 ff . (and between 8 ff , and the parallels indicated
 identify. Significant passages are PGM LXI 36 (the scarab eifowdov of the Sun; cf. A. D. Nock, PBA 17 (r931) 273), 1188 (the cat єibwhov of the spirit of the drowned cat), VII 37-8 (the pctitioner tiow 8 ov or HermesThoth). Plutarch, De Is. 359B, defines Apis as $\epsilon$ iow $10 v$ of the soul or Osiris and Griffiths ad loc, is inclined to Pap. Lugd. Bat. XIX, p. 253 f). But other words are in play f . Quaegebeur, (sce $L I$ haenix 22 ( 1970 , 57 ; idcm, in
 hopre 'Herr der Gestalten', is ' 'ş j jnve 'vielfaltig an Farben' (see $L L 216 \mathrm{n} .139$ ).


$\eta \boldsymbol{\eta} \kappa \mu$ oot. Cf. 26 and PGM I 26, 29, III ${ }^{1} 55,392$, IV 2194 etc. The exhortation to the god to come closc to the petitioner is as characteristic of the Greek hymn (sec c.g. Fr. Adami, De poetis scaenicis Graecis hymnorum (bid 63 (1965) $17-8$; A. Barucq, Lexpression de la louange divine et de la priére dans la Bible et en Foppte (BdE 1962) 28-9, 160, 372 ). 962) $\beta^{-}$. For its use to cf. Suppl. Mag. II 92.18 n





 23 (cf. PGM, Vol. 2, 269), in the formulary published by W. Brashear, APF 38 (r992) 20, 11. 20, 21, and in various Coptic magical texts (cf. e.g. A. M. Kropp, Ausgewählte koptische Zaubertexte I, A 2I, B I; S. Pernigotti, SCO 29 (1979) 28, I. 6-7 n.; H. Satzinger-P. J. Sijpesteijn, Le Musion $\operatorname{tor}$ (1988) 52 (I. го), 56 (11. 73, 75)).
 XIII $1050, \times$ be read.


 тàc $\mu$ oppác, 20 , XIII $621-2$ (also IV 1817-8). For the Egyptian texts, cf. e.g. S. Sauneron, Le papayus magique
illustré de Brooklyn (New York 1970)
$23\left(4^{6.7}\right)$ iil sera gardé et protégé prâcc au nom d'Amon, car il connâ̂t les grands noms d'Amon, et il [connaît] aussi <s>es formes [grand]cs et mystérieuses d'Amon [qui son ordinairement cac]hées aux dieux ct aux hommes' (for analogies between Greek and Egyptian texts, cf. $L$ 43). Forms and names of the god are closely linked: a change of form involves a change of namc (scc $L L, 43$ with nn. 18-9). Knowledge of the true names and forms of the god confers authority on the sorcerer and R. Merkelbach and (
 Chepre wenn er die Erde durchzieht'. The coursc of the Sun is normally not known to mankind: cf. AA $H$
${ }^{41}$ no． $36.3-4$＇Du querst den Himmel，und jedes Gesicht schaut dich，（aber）dein Gang ist verborgen in ihrem Gesicht＇；210 no．89．15－6； 216 no． 92.26 ＇man kann deinen Gang nicht erkennen＇； 229 no．97．39－40；
 wenn er aufgeht＇．For the Greek parallels，see $7-8 \mathrm{n}$ ．above．Also the true＇forms＇of the god arc not known； cf．$A$ AHG 393 no． 192.6 （also 394 no．193．2）＇wie geheimnisvoll sind deine Erscheinungsformen！＇；PGM VII
 Sun in R．Merkelbach，Abrasax III 48 ．
8－17 Forms and names of the Sun．The section presents analogies and differences when compared with PGM III 499－536，IV $1648-95$ ，XXXVIII $18-26$ ，where the forms of the Sun are indicated in the twelve hours of the day，according to the system of the dodekaōros（on which see e．g．R．Merkelbach and M．Totti， Abrasax I ro4 ff，II 2 ff ．）．In III $499^{-536}$ ，in particular，for every form of the Sun，corresponding to a quadruped，there is an associated plant，stone，bird and reptile and the god＇s secret name is indicated．A similar arrangement of the natural world is present also in 4468 ，but given as constant and without changc
during the twelve hours．However，the arrangement seems less systematic and precise than in the parallel during the twelvc hours．However，the arrangement seems less systematic and precise than in the paratel
passages（two＇forms＇among the quadrupeds：goat 9 ，bull I4）．Other somewhat similar passages are PGM II 106－15（the forms of the Sun in the four cardinal points；see W．Fauth，Helios megistos：zur synketistischen Theologie der Spatantike（Leiden－New York－Cologne 1995）43－4）and VIII 8－II（the forms of Hermes－Thot in the four cardinal points）．
 It appears in an area where there are traces from the original text on the papyrus，but the ink is very distinct． Against a reading ¿＇由ouct are both palaeography（the trace does not particularly favour $b$ ，even if perhaps it does not exclude it；the extension of the top of sigma preceding suggests a word end）and language（dat．pl．
in－ouct is alien to the koine；sce H．C．Youtie，Scriptriunculae I 388；one example is recorded in F．T．Gignac， Grammar II 23 ），besides the fact that we would have confused syntax．Perhaps of écruv？The resulting phrase however（＇you have a form among the quadrupeds：it is the goat＇）seems unnatural．
 was imagined and represented as a goat or as an old man with a goat＇s head，in which form he made his nightly journey；see e．g．R．Merkelbach and M．Totti，Abrasax I 29－30，79（PGM XII 79）， 153 （PGM XXI 5）．For the solar associations of the goat，see W．Richmann，Tiere in den Zauberpapyri（typescript diss．Berlin 1946）65－70．


 bpveouc as in restrictive apposition to iepoic 乌ఢouc，thus＇among the sacred animals，the birds＇rather than among the sacred animal birds＇．
Io＇$\eta$＇ ＇oivvk．$\phi$ ôvisk is normally masculine（although the male sex of the bird was not undisputed；see R．van den Broek，The Myth of the Phoenix（EPRO 24，1972）357－89）；cf．also 31．On the other hand the raised eta，clear and distinct，seems to be by $m^{1}$ ，not from the washed－out text；and the＇anaphoric＇article was unsatisfactory（ $\eta=\epsilon \hat{?}$ ？ impf, ？$)$ ．

 solar bird par excellence，in both Egyptian and Greek myth；see e．g．L．Kákosy，Lexikon der Ägyptologie IV，s．v． Phönix，1031－2；R．van den Broek，The Myth of the Phoenix，passim；W．Fauth，Helios megistos 45 with n． 58 ．
 30－3I n．below．
 and H．Thompson，The Demotic Magical Papynus of London and Leiden IX 9 （cf．H．D．Betz，The Greek Magical Papyri in Translation 210），in a similar context to ours，the black labeo（lbs km）appears linked with the moon god Chons＇thy fish of［the deep（？）］a black lebes＇．The solar association in $\mathbf{4 4 6 8}$ could support the identification，
entertained by D＇Arcy W．Thompson，loc cit．，of the labeo with the mysterious fish 3 bddw sacred to Ra；but see 1．Gamer－Wallert，Fische 28 with n．I47， 38 n．253．In the papyri ađap $\eta$ c occurs in P．Co．．IV 71．6， $\delta \mu$ endac．The papyrus is badly damaged．Of $o$ there is only part of the right side；of $\lambda$ only the tip of the right leg．
 On the lion as a＇solar animal＇，see c．g．Th．Hopfner，Offenbarungszauber I §461；W．Richmann，Tiere in de

 is called $\epsilon i \hat{i} \omega \lambda$ ov＇Hitov．On the scarab as a＇form＇of the Sun in the morning（Chepre）and a symbol of his eternal cycle，see e．g．R．Merkelbach and M．Totti，Abrasax II 73 （PGM III 207－8），with references．
ev toic devopech．A similar distinction between trees（wood）and herbs（ 15 Boravp）in PGM VIII 12－3


кар $\delta \dot{\alpha} \mu \omega \mu \circ v$ ．The connection of the plant with the Sun is confirmed by PGM III 3 II and 390 ，where it



 perhaps better，the remains of a longer phrase（e．g．＜your form among ．．．is the＞kvvoкє́da入oc，your nam
 кขvoкєфй́dov．For the кvvoné $\phi$ àoc as a solar symbol，see W．Fauth，Helios megistos 76 and n． 242
${ }^{14}$ ailúv．For Helios－Aion，see Suppl．Mag．II $95 \rightarrow 17$ n．；I．Fauth，Helios megistos 74 ff．For the motif of $^{2}$ the eternity of the Sun in Egyptian hymns，of．e．g．R．Mcrkclbach，Abrasax III 47， 219.
 （the zodiacal sign）vero ad solem reforri multiplici ratione Aegyptius cultus ostendit．See W．Richmann，Tiere in den Zauberpapyri 70－3．

 and see W．Richmann，Tiere in den Zauberpatyri 30－43．
 A primary problem is whether to punctuate after avy $\theta$ ov or after $\epsilon \pi \notin q u y \in$ ．In neither case is it possible to
propose a syntactically plausible supplement in 16 ，short of supposing a scribal omission（see 16 n ．below）．
 LXX Chron． 1 17．21，Mal．1．14；Greg．Nyss．，Test．adv．Yud．18，Migne PG 46，229C）

5 i Roravn cov．Cf．PGM 12 quoted above， 12 n ．
 its preserving qualities，became one of the four sons of Horus，Amset（see H．Kees，Der Gitterglaube im alten
Agypten（Berlin 1956 Ps．Apul，Herb．122，p．297．3－4 Howald－Sigerist，a connection between dill and Apollo is established（herba bona，sancta anetum，et te，Apollo sancte gueso obsecro，ut hoec herba mihi in adiutorium sit etc），
 illustrious name derived from you＇）or cause，agent（the name illustrious because of you＇）？Neither seems really satisfactory．
$\dot{\varepsilon} \xi \in \cos$ ．For $\kappa c$
$\xi$ coo．For $\kappa$（（in composition or word－junction）＞$>c$ ，see F．T．Gignac，Grammar 1 I4

 Merkelbach）．


a predicate ('your name is: he who appears as Olympius'). The second hypothesis may be preferable because in Egyptian hymns to the Sun the expression 'you have appeared as X ' is very common (e.g. The Book of the Dead, Spell I 8 ' 'you have appeared in glory like Re' (p. I 8 ol Faulkner); other examples in $L L, 232-3$ ). Also
the 'Sarizipialsti') could suggest that the phrase has an Egyptian origin (A. Barucq, Lexpression de la louange divine ${ }^{142-4, ~} 150-2$; Nordcn, Agnostos Theos $166-8$, 201 ff).).
'Oh́s umioc. The well-known identification Amon(Ra)-Zeus seems to be active here
 the space does not seem enough for this and to provide a context for $18 \delta]$ [ucuaic cf. also Orph.h. $78.10-11$. egion where the dead dwell, according to the Egyptian idea?
 beginning of 19 (the beginning of 18 is unlikely); as a result, the overall interpretation of the passage remains conjectural. Comparison with Egyptian hymns suggests two possibilities: (a) homage of the universe to the Sun (i.e. the various creatures awake, rejoice, begin their work, honour and praise the god, and so on); (b) a list of the beings that the Sun has creatcd and to which the Sun provides life every day; cf. $A H G 567$. Against
(b) should count the presence of 20 o $\delta$ ]oinopov[ $\nu \tau \epsilon]$, which fits very well on the other hand in (a) (see 20 n . below). $\dot{\delta} \delta] o u \pi \sigma 000[\nu \tau \epsilon]$ c again, for the same reasons, makes one doubt that the sentence ran uninterrupted as far as. ${ }^{*} \chi o \mu \xi[\nu]$ ( 2 I ), and that this was the verb, with a change from the third to the first person plural. Comparisons with Egyptian hymns put forward in the notes following that relate to this passage have been made on the assumption that (a) should be the correct interpretation.

For perhaps the most vivid description in the Egyptian hymns of the reactions of the world to the rising Sun see $A H G{ }^{217}-8$ no. $92 \cdot 40-58$. Cf. also the other passages listed in RuA 128-30, and see A. Barucq,
 h. $78.10-11$.
 Chrys., Fragm. in ${ }^{\text {fob }}$ II, Mignc PG $64,56 \mathrm{rB}$ тov̀ ádavic $\theta$ évaca. For the motif of the dead who awake during the nightly journey of the Sun and pay homage, cf. e.g. $\tilde{A} H G 405$ no. 195.231-2 'Dic Bewohner der Unterwelt umringen dich mit Preisungen, die Lebenden verneigen sich vor deinem Aufgang' (the living and the dead as in our passage), and see RuA I3r.
 no. 195. 159-60, 405 no. 195.236 .
$20[a ̈] \pi \tau \epsilon \rho q$. Wc would rather expect a reference to winged creatures, cf. the birds in $A H G 215$ no. $91.61-5,217$ no. $92.48-9,313$ no. 132.18 . Against $\pi \tau \epsilon \rho \omega[\tau \bar{\alpha}$ is the loss of a letter before $\pi$, whilc $\omega$ cannot
 1.50). Perhaps $\tau \grave{\alpha} \pi \tau \epsilon p \omega \tau \alpha \dot{\alpha}$ or $\tau \grave{\alpha} \pi \tau \eta \nu \dot{\alpha}$ vel sim. lost in lacuna in ig before $\pi$ ]ávra? (but the verb? see above
$18-21$ n. init.)
oi $\delta 8 \bar{\delta}]$ ouropoo $[\nu \tau \tau] \in$ © $\pi$ ávecc. In the Egyptian hymns to the Sun the motif of the roads that the light makes passable for mankind is very frequent; c. e.g. AHG 218 no. $92.55,210$ no. 89.12 'der auf den wegen mit
Millionen unter seiner Leitung', 397 no. 195.8'Bist du nicht Lenker auf [jedem] Wege?', 405 no. 195.245 'du hast alle Gcschöpfe aufgeweckt und ihnen dic Wege geöffnet'; see also 56 with n. $32 ;$ RuA 108-9, 110 , 136 .




 der ohne dich leben kann!', 221 no. 92.125-7 'Die Erde entsteht auf deinen Wink, wie du sie geschaffen hast: du gehst auf für sie--sic Icben, du gehst unter, sie sterben. Du bist die Lebenszeit selbst, man lebt durch dich'; $L L .315$ (III 4.6) 'er geht auf: auflebt die Menschheit' (and cf. the parallels on P. 321); on the motif of
 etc (see Roscher I. 2 2021-2; K. Kcyßner, Gottesvorstellung und Lebensauffiasung im griechischen Hymnus (Stuttgart 1932) $14^{8-9}$ ).
 god is frequent in Greek hymns; scc K. Keyßncr, Gottessorstellung 29.

тò $\zeta \hat{\eta} \nu .$. тò $\zeta \hat{\eta} \nu$ as equivalent to $\zeta \omega \omega$ ' is idiomatic: cf. LSJ, s.v. $\zeta \hat{\zeta}$, I; Bauer, Wörterbuch, s.v. $[\zeta \dot{\alpha} \omega]$, 1aa Moulton-Milligan, s.v. 乌áw. A sense 'mcans of sustenance' (cf. e.g. Dittenberger, OGIS II 515.57 tò Қ̧̂̀ oùr $\left.{ }^{*} \chi^{\circ} \circ \mu \epsilon \nu\right)$ is less likely.
 for the supplement in 22 : (a) the sequence $\dot{\epsilon} \pi[\ldots]$, ac is composed of the proposition $\grave{E} \pi /$ and a noun, indicating the place or the (bject on which the sun opens his eyes when you open your eyes on - - , the light lives
because of you ( $\epsilon$ 多ov $=\dot{\epsilon} \kappa$ coî, cf. 21) for every form'; the reference would be to the sunlight's daily rhythm. But I can think of no suitable noun ( $\bar{\epsilon} \pi[i \gamma \hat{a}]$ c will not do); and $\phi \hat{\omega} \mathrm{c}{ }^{\prime}\langle\hat{\jmath} \hat{\jmath}$ is diflicult. Otherwise, (b) the sequence conceals a verb (second person, past tensc) meaning 'to create, produce' vel. sim., i.c. 'when you opened your eyes, you created the light for every form, from which (the light) it (the form) lives'; the reference would be to the first moment of the creation of light. $\epsilon \pi[0 ; i n]$ cac satisfics space, traces and sense. (b) is unobjectionable

 das Licht für jedermann durch den Glanz deiner Augen etc.'. Cf. also, again referring to the moment creation, the following three passagcs: (i) Ddhr Statue, 1. 81 'qui a illuminé les Deux Terres de scs yeux (transl. S. Sauncron and J. Yoyotte, La naissance du monde selon l'tgypte ancienne, in: La naissance du monde (Sources Orientales 1, 1959) 55; but E. Jelinková-Reymond, Les inscriptions de la statue guerisseuse de Djed-her-le-sauveur (BdE 23, 1956) 42 translates 'qui illumine')' (ii) the dedicatory inscription of Ptolemy VIII on the second pylon at Karnak 'IT [1.e. the crcator god] eclaira les terres par ses deux Ycux' (transl. E. Drioton, ASAE 44 (I944) II7; also in S. Sauneron and J. Yoyotte, Ea naissance du monde 70 (no. 28a)); (iii) Esna III, 206, 2 'Ellc (i.e. Neith) rendit lumineux les regards de ses yeux, et la clarté fut' (transl. S. Sauneron, Les fêtes religieuse of the Sun, see $A H G 56$ and $n$. 4 23-4 [']à davic
and content: short phrases in parallel with the cormblance to Egyptian hymns is here very close, both in form e.g. AHG 221 no. $92.126-7$ 'du gehst auf für sie - sie leben, du gehst untcr, sic sterben'.
 (Paris 1980) 440 no. 130.2 lorsque tu te levcs, les hommes exultent a ton eclal (hymn to Hathor, her assimilated to Raet, female doublet of Ra). More often in these formulas the refercnce is to life: cf. e.g. $L L$ $3{ }^{1} 5$ (III 4.6) and parallels (see above 21 n .); sce also the preceding note.
in Egyptian hymns, see e.g.

Lichtland, dann liegt die Erde in geballter Finsternis', 221 no. 92.127 (cited above, du unter in deinem wenn du untergehst, entsteht linsternis', 167 no. $58.42-5$ 'Der untergeht im westlichen Lichtland und Finsternis verbreitet uber dem ganzen Land, das Licht entsteht bei deinem Hervorkommen, die Finsternis wenn du zur Ruhe gehst in deinem Hause'; RuA 141-2 'Gehst du unter im westlichen Lichtland ist die Erde in Finsternis in der Verfassung des Todes ... Die Finsternis ist ein Grab'. For the motif, see ibid., I41 1 -3; also LL 180 -


 25 wimtoc. The Sun in the morning, according to the Egyptian idea: see RuA 65 with n. 39; König 38 with n. 2; $\overparen{A H G} 295$ no. 129.37 'Er [entstand?] als ein Kind', 308 no. 13 I .2 2-22 'Der Greis, der am Morgen

 the beginning of the yearly course of the Sun at the winter solstice (see H. G. Gundel, Weltbild und Astrologid in den griechischen Zauberpapyri (Munich 1968) 7).

 note on 134). $\tau \iota \tau$ davoc seems not to occur elsewhere with reference to Helios (but c.. Tuanius of the Sun in
Man. I 869 and Avien., Arai. 127 , 1063 ). Frequently, on the other hand, in late texts Helios is indicated by Man. 1869 and Avien., Aral. 127, 1063). Frequently, on the other hand, in late texts Helios is indicated by
Titavp; for the Greck texts, see C. F. H. Bruchmann, Epitheta deorum 148 and cf. PGM II 86 , III 210, XXIII 5; for the Latin texts, I. B. Carter, Epitheta deorum 93. See W. Kranz, Philologus 105 (196I) 290 ff; W. Fauth, Helios megistos 42 n. 42.
ä $\lambda \kappa<\mu о с$. Of Helios in PGM III ${ }^{134-5}$, IV 1601, 1696.
$\mu$ éycecoc. Of Helios in PGM III 218, IV 640, I598, VII 529 ; CH 5.3 (I 61.II I-2 N.-F.).
 Egyptian or Greek, Me too banal An Egyptian background is more promising, I think. I offer two hypotheses, but they remain highly speculative.
I. 1) According to cosmogony developed at Thebes in the Ramesside period (and attested in the hymn to Amon-Ra in the Leiden papyrus J 350, III 22-7) the creation of the world took place by means of a threestage process: (i) in the beginning there is the Ogdoad, the eight primitive gods, who impersonate primordia Chaos and in whom Amon is present but hidden, as a hypostasis of their unity; (ii) Amon takes the form of Tatenen (the primitive hill which emerges from the 'Urwasser'); (iii) the god goes away into the sky where
he remains as the Sun, Ra (see RuA 223-4: S. Sauneron and J. Yoyotte, La naissance du monde 68 (26c)). Ra is therefore the manifest and successive form of Amon, 'The Hidden One', his appearance an epiphany of the hidden god. 2) Amon, whom the Greeks identified with Zeus (Cook, Zeus I 348 ff .), sometimes appears connected with rain (see A.-P. Zivie, Lexikikon der Agyptologie V, s.v. Regen, 203).
II. According to a different cosmogony the Sun rose the first time out of the primeval ocean, Nun (see e.g. S. Morenz, Egyptan Rehigion (Engl. trans., Ithaca 1973) 179-80), a process repeated every morning from then on. Nun is identified with the Nile (see e.g. D. Bonneau, La crue du Nil I 43 ff .). The inundation of the Nile is often assimilated to the rain (cf. ${ }^{*} \mu \beta \rho o c$ and the like to indicate the flood: see D. Bonneau, op. cit. 130 n. 1) and the Nite itseif to Zeus, in his capacity as he god of ranr (see of the Sun from the "Urwasser ( $\rightarrow$ Nile $\rightarrow$ Zeus).

Zeus ouspoc is mentioned also in PGM IV 2g61, in a spell for pieking a plant, where the plant



$26{ }^{2} \mu \kappa \epsilon \in \mu 0 u$. See 5 n. above.
 (but the confusion between $\mu v v$ and $\mu o c$ is frequent, see F. T. Gignac, Grammar I 215 n, I). Both constructions ${ }^{2} 7$ 'ìaoóc. Here 'benign', 'friendly', Grammatik II. 2 207-8,

 On the motif of the favourable god, see K. Keyßner, Gottessorstellung $87-98 ; \mathrm{H}$. S. Versnel, $Z P E 58(\mathrm{rg} 85) 260-1$


 455a.37-8 (VII 174 Henry).

29 ff. Threats against the god. Such coercion is a well-known motif of magic logoi: see $Z P E$ II4 (1996) 28 n. 8.



 Polyh., FGrAs 273 nected with the identification and the location of the site III 2, p. 1 130. 9 Pinder-Parthey (for and R. Coles in LX 4063-4067 introd,, 146-8). 4468 is of interest as showing clearly that the toponym wa felt as connected with the name of the fish that was sacred there (фaypópoc, ôv кaì фd́ypov кадoocw, Strab.
${ }^{17.2 .4,}$, C823), whatever its true etymology (from Egyptian $P_{r-q r 7}$ 'house of the frog' according to some; sce W. Helck, Lexikon
Wallert, Fische 103).

According to Gamer-Wallert the phagros was venerated in Phagro(rio)polis as a manifestation of Ra (Lexikon der Agyptologie II, s.v. Fische, religiös, 232; IV, s.v. Phagros, 1017). This hypothesis seems to find some support in our papyrus, which establishes a connection between the locality and Ra. The threat of going to Phagro(rio)polis is then on the same lines as that of going to Heliopolis and the 'house of Benben' (see the less probably: Plutarch, De Is. 358B, gives a version of the myth of Osiris according to which the Icpidotus, phagrus and oxyrhynchus fishes devoured the phallus of Osiris when it was thrown into the Nile by Seth The sorcerer could then threaten to go to Phagro(rio)polis to venerate an enemy of Osiris(-Ra). But this passage is isolated and idiosyncratic: see Gamer-Wallert, Fische 93-5; Griffiths, ad loc.
 Greek by $\dot{\alpha}-$-, see W. Clarysse and J. Quaegebeur, Symb. Osl. 57 ( 1982 ) 78 -9), 'the house of Benben', the sancta sanctorum of the solar temple at Heliopolis (see E. Otto, Lexilon der Agyऐtologie I, s.ग. Benben-Haus, 695). The 'corpse' of Ra lay there (cf. 33 ov́ éçiv cov $\delta$ тd́doc): cf. e.g. AHG 286 no. 127B. I6I-3 erschienen in with n. 38; Sonnenhymnen 213-4(n); RuA 89 n .138 . The 'house of Benben' at Heliopolis was also called the 'house of the Phoenix': here the sorcerer threatens to 'twist the bones of the sacred phoenix, the greatest' $3^{-1}$ ).
 papyrus in Geneva MAH 15274, perso V 4 (ed. A. Massart, MDAIK ${ }_{15}$ (1957) 184 ) '[and I shall cause (户)] the feet of the Phoenix which is in the land [to be bound (?)] ${ }^{3}$. For the phoenix as a solar bird, see ro n. above. In 4468 the reference could be to the bones of the corpse of the old phocnix from which the new was reborn
(thus in one of the two principal versions of the Greek-Latin myth; cf. particularly Plin., N.H. 10.4 ex ossibus deinde et medullis seius nasci primo ceu vermiculum, inde ferii pullum). If so, given that the rebirth of the young phoenix from the remains of the old one symbolises the eternal and rhythmic course of time (of the day, the month, the year, and more extensive cycles), the threat not only represents an act of sacrilege but would have a cosmic significance.
фoivcoc $\mu$ еуícrov. Cf. 'the great phoenix' in The Book of the Dead, Spell 17 (p. 44 Faulkner), 125 (p. 31 Faulkner).
 act of impiety. 'Mit "Smaragd" ist vielleicht das aufgrünende Osiris-Bett gemeint, der Korn-Osiris. Wenn observes that the passage 'klingt eher nach einer frommen Handlung (Salbung) als nach einer TabuVerletzung'. But also in PGM LVII $6-7$ the sorcerer affirms, if his requests are granted, $\kappa \alpha i[0]]^{\prime} \kappa\left[\begin{array}{l}{[\epsilon] \kappa \chi \epsilon \omega}\end{array}\right.$ т $̀ \nu$ к $\epsilon \delta \rho$ pav, $\left[\right.$ [ $\left\langle\lambda \lambda^{\prime}\right]$ tác $\omega$ (differently R. Merkelbach and M. Totti, Abrasax II 92 and 95).
 sense in Macar., Serm. 28.1.7 [I 257.8 Berthold]), and to recover the known édacov ávítivov (Gal., Simpl. med. fac. 2.12, 5.19 ( $\mathrm{XI} 489.15,766.6 \mathrm{~K}$.); Aet, Iatr. $4.44^{2}$ (CMG VIII.I 386.7), etc.) would need only minimal H . Thompson, DMP V 5 , VI 2,8, XII $_{2}, \mathrm{XX}_{18}$ 8 21, $^{22}$, XXV 12 , etc.; for the expression in Coptic $\epsilon_{2}$ mme, see W. E. Crum, A Coptic Dictionary 157a, 240b; W. C. Till, Die Arzneikunde der Kopten (Berlin 1951
 13; C. Andrews, Ancient Egyptian Jewellery (London 1990) 42, 47, 52), even if à $\lambda \eta \theta$ tvóc is not inappropriate for gemstones (cf. Athen. 5.205 f ). This may lead us to suspect that at least this portion may have been composed or translated into Greek by an Egyptian.

33 oṽ ${ }^{\text {eccrív }}$ cov $\delta$ rátoc. For the tomb of Ra in Heliopolis, sec 30 n. above.
kvús $\omega$ ( $1 . \AA v o(\xi \omega)$. A very frequent spelling in papyri (see F. T. Gignac, Grammar I x98).
 Osiris is a frequent threat: cf. J. F. Borghouts, Ancient Egyptian Magical 'ext I no. I sub fin. 'If they fail to make
her come after me I will set <fire> to Busiris and burn up <Osiris>' (the same threat also in 69 no. 92 77 no. 105; A. Massart, MDAIK 15 (1957) 184); F. Lexa, La magie dans l'Égypte antique II (Paris 1925) 53 (VII) 'Je réduirais Ousirew en cendres'; Audollent, $D T$ 270.21-4 si minus, descendo in adytus Osinis et dissolvam Tìv



 $k] a i$ ctc. A tomb of Osiris in Heliopolis docs not create difficulty, given that almost evcry nome in Egyp 'Osirisedeliquien' (AgAbh god's tomb or a reliquary (see Bonnet, Reallexikon, s.v. Reliquien, 637; H. Beinlich, Die 'Ssiristreliquien' (AgAbh 42, 1984) passim, 314-5; in particular for Heliopolis, see H. O. Lange, Der magische
Papyrus Harris (Copenhagen 1927) 76); and the location of such a tomb was always an abaton (sce E Winter Lexikon der Algyptologie I, s.v. Abaton, I).
$34 \mu$ évectoc. Of Osiris in PGM III 440.
$\dot{d} \pi \lambda \dot{\alpha} \tau \omega[\mathrm{ll}$. The papyrus is badly damaged at the beginning of the word, but the reading is not seriously in doubt; certainly not aparol. When ä $\pi \lambda$. 'immensc', but here the original sense of 'unapproachable' scems required (cf. Plut., De Is. 20, 359B ǎßatov Das Gotur acdekret uiber das Abaton (DAWW, phil-hist K1 Rhilae, location of the tomb of Osiris; and sec H. Junker, $35 \delta$ Zevं [c? Zeus-Ammon?

aboons in figurative representations in ] . ô̂rrec | aủrọ̀v. Four (or groups of four) is usually the number of n. Io6). But their function herc is obscured by the lacunas and the uncertainty over identification of 37 àjutov.


Col. ii

19 Probably a form of кávөapoc or кáveov.


26 eт
30 Possibly $=$ Neciúr, a nome in
30 Possibly $=$ = Necít, a nome in the eastern Delta; see Caldcrini-Daris, Diz. geogr. III 345
Verso, col. i
${ }^{1-17}$ Remains of a charitesion, a spell to acquire attractiveness (on this kind of spell, see C. A. Faraone, Phoenix 44 (1990) 224-7, J. J. Winkler, The Constraints of Eros, in C. A. Faraonc and D. Obbink (edd.), Magika
Hiera 218-20; R. Kotansky, Greek Magical Amulets I (Pap Coner Hiera 218-20; R. Kotansky, Greek Magial Amulets I (Pap. Colon. XXII.I, 1994) 356-60). A list of charitesia in Greek papyri in W. M. Brashear, ANRW II $18.5,3502$. Content: $1-4$ praxis: the petitioner is probably advised
to collect the dew from a specific plant, to bathe with it and not to wash for that day $5-17$ logas various divinities (Persephone, Zeus, Hermes, Hera, Aphrodite) are invoked, who are asked to grant charis, the means of obtaining it being the dew sent by the gods to earth and with which the petitioner has bathed. Half hexameters $(5,6,7$ ) and sequences of various lengths in which a dactylic rhythm is recognisable ( $10,11,12$, ${ }^{13}, 16$ ), together with epic vocabulary ( 12 vaî $\langle\nu\rangle \delta \epsilon, 13$ vainc), allow us to glimpse behind the logos an original
 Maudioc vet (7) at verse-end and if the two half lincs were part of two completc hexameters, the width of
col, i verso ought to have been c. 20 cm . col, 1 verso , ought to have been c. 20 cm .
$2 \in \pi$ avintc. Probably the plant mentioned in the preceding line
and vitaliyy (for the Greek occur as a surprise in a charitesion, associated as it was with fertility, generativity Religion (Chico 1984) passim (54-60 erotic implications); for the Egyptian onc, sec I. de Savigneac, Noety and (1954) 345-53). In the folklorc of many peoples the beli; for the Egyptian onc, sec J. dc Savignac, NouvClio beauty; see Cook, Zeus III 165 with n. 3; Hendwörterbuch des deutschen Aberglaubens I 824., VIII 69 I
$3 \pi \rho]$ ]ccourov кai $\chi$ iptv. If the two nouns are coordinated, perhaps калі̀v $\pi \rho]$ ọcumrov: cf. PGM VIII 4
 part of the body to be bathed with the dew
 charm', 'attractivencss'.
 Neutestamentliche Grammatik² 113



 598.1 I - 5 (H. Kohl); in PGM IV 2293, 2335, VII 785, LXX 10 and Suppl. Mag. I 49.57 the key is indicated as cúpBodov of Hecate-Persephone-Selene (for Hecate ( $=$ Pcrscphone) $\kappa \lambda \epsilon \delta \delta o 0$ रoc, see c.g. RE XI.I 598.23-50 (H. Kohl); VII. 22773.41 - 63 (J. Heckenbach); S. I. Johnston, Hekate Soteixa (Am. Class. St. 21, 1990) 39-48). For $\delta a \delta 00000$, cf. PGM IV 2559 ( $=$ hymn. 20.32) and 2718 ( $=$ hymn. 21.4) of Hecate-Persephone-Selcnc; also Diggle's note. П入oúrovoc ăvaктос. The genitive will be governed by a noun such as סapap vel sim.: cf. Gall. fr. 285 Pf,



 verse-end. For Matádoc vié at verse-end, cf. [Hom.], h. Herm. 301, 408, 439 etc.; Orph. h. 28.1; Anth. Pal. 6.346.I (Anacreon).
a. If at verse-beginning, hiatus (rare) after кat (cf. below, I3 n.)
 9 ноvcal. Cf. PGM IXI 34 Raßpove ${ }^{2}$.
 Vol. 3 (Index) 228, 24I and Suppl. Mag. II, p. 332 (Index VIII). For the meaning, see cspecially Zs. Ritoók, AAntiung 26 (1978) 439.

Io रapitwv àváacecto. The invoked gods? For the conjunction रapitav avá $\mu \in c \tau o c$, cf. Ael., V.H. I3.I


Suava. סuava? Sıava-? $\delta \iota \grave{a} v a-$ ?
we sent by them from the sky to thect again the invoked deities (in conformity with the idca that the dew was sent by them from the sky to the earth; sce D. Bocdeker, Descent from Heaven 31, 49-51; the idea is
Egyptian also: see J. de Savignac, NouvClio 6 (1954) 345-53; cf. also PGM IV 2982-3 ciे $\langle\epsilon\rangle\rangle \dot{\eta} \delta \rho o \operatorname{coc} \dot{\eta} \tau \hat{\eta} \tau \hat{y}$

 Kassel-Austin).
 1.153, 7.75, 8.194. Or, with pause after 'Oגú $\mu \pi$ тov, єic yaiav $\delta \epsilon$.
$\gamma a \grave{\alpha}\langle\nu\rangle \delta \epsilon$. For the form, cf. P. Argent. 481 (Pack ${ }^{2}$ 1849), verso 10 (a new edition by D. Gigli Piccardi, La 'Cosmogonia di Strasburgo', Firenze 1990).
I3 Perhaps kai ànò yainc $\|$ (in accordance with the usual position of ảmò yaínc in hexametcrs) with hiatus after кai. 15 xpetouat (1. Xpioual). Sprinkling oneself wXIV correct); Suppl. Mag. II 72 ii 4 ; F. Ll. Griffith and H. Thompson, DMP XII i4, 30 (cf. H. D. Betz, The Greek Magical Papyri in Translation 215, 216). (In C. A. Faraone, Phoenix 44 (r990) 224 and n. 10 parallels from neoAssyrian magic).

8wpicare. The active form is notcworthy; already rare in archaic and classical Greek, it becomes excep-
tional in the Hellenistic and late periods (Joh, Chrys., De paenit. 8, Migne PG 49, 344; see also R. Kotansky,

Greek Magical Amulets I 56， 68 n．）．For $\delta \omega$ étopue said of gods，see C．Ausfeld，De Graecorum precationibus quaestiones bclPh Suppl． 28 （rgo3）531，and add the indications in Bauer，Wörterbuch，$s . v$ ．
 489，VII 186 etc．；Iren．，Haer．1．25．3［SC 2644 ，p．336］；Cyranid．2．14， 4.67 ，pp．139．12， 293 ．18 K．），but strictly
 bear）dopoíutvor Xapurincoó eicuv）；（b）＇offering（gift）of thanks＇（IV 66253 （Antip．Sid．；see Scl．Pap．III

 provide the correct sense；cfr．Preisendanz＇Freude des Kosmos＇；Eitrem，P．Oslo I I．35 n．＇amor et deliciae of the universe＇）．（a）suggests a sense＇give me things（qualities）which will procure $\chi$ व́pu＇；（c）more directly＇give me $\chi$ ápcic

 4介，sec recto i 6 n．above．
I8－26 Praxis（ $18-20$ ）and
ts（18，22）suggest prima facie a spell against insomnia，but certain elements be precisely determined． aggressive magic，perhaps an agrupnētitoon against a woman（if so，erotic magic：cf．Suppl．Mag．II 7 I ，fr． 22.4 n ，； see also 26 n ．below），with a guarantee for the petitioner of enjoying＇sweet sleep＇．But this is all uncertain； especially，I cannot recover a context for 23 ．In the logos of this section as well it is possible to discern traces of an original hexameter form：besides a hexameter which was probably complete（ 26, see $n$ ．below）there are possible（21，24）or easily recoverable（22）dactylic sequences．
${ }^{18}$ caròv（1．cautòv）．For $\alpha v>\alpha$ ，cf．Mayser－Schmoll $92-3$ ；F．T．Gignac，Grammar I $18 \%-8$
W．M．Brashear，Magica varia（Pap． $20 \lambda]{ }^{2} \gamma \in \epsilon$ ．For the number three in magic，cf．PGM，Vol． 3 （Index）rgo，s．v．тplc，and see Brashear， Magia varia 4 r．
${ }^{21} \mu \dot{\eta} \tau \eta \rho \tau^{\prime}$＇av日powitarv．＇Mother of mankind＇，of Physis in Philo Jud．，Decal．4r；of the Earth in Plut．， Amat． 24 （392．5－6 Hubert）；Dion．Hal．，Ant．4．69．4；Orph．$h$ ． 26.1 ；Dio Cass． 2.11 II．I2（I I $_{32.4-5}$ Boissevain）； of Cybele in［Hom．］，hymn． 14.1 r；Aristoph．，Av． 875 ；Julian．，Orat．V 179 D；of Rhea in Orph．h．14．9；of the
 （Aphrodite）．Here with reference to Perscphone（cf．26）？
viaval．Cf．via PGM V 442；vada IV 390 and vail LXI 70，oegail 67，dowaï 69，valu 69.
 in the magical hymns（cf．PGM IV $2735=$ hymn．21．15； $2756=$ hymn．21．29；2909；2931 $=$ hymn．22．13）．



 oid $\delta \eta y)$ ；see ii $9-10 \mathrm{n}$ ．below．

 line（if so，intruding strongly into the intercolumnium and beyond）or if it was spread over two lines．This formula（parallels are indicated at in 9－10 n ．below）occurs especially in love charms（exceptions：PGM 294－5，XX 4；III 412 i\％， 25 （Jul．Aff．，Cesti，pp．285， 287 Vieillefond））．

Col．ii




2 Possibly $\delta^{\prime}$ àd $\lambda a[$ ．For ］avava，cf．verso i 21 vavavat．
解个个．See recto i 6 n ．above．
$5 \pi a \ldots$ ．povc，second，$\epsilon$ also possible（not o）；third，$\nu$ or $\lambda$ ；fourth，foot of a vertical curving left（？？）；fifth， $v, \eta, v$ possible．I cannot make anything of this．$\pi d \lambda \varphi p$ ？but then what？
$\pi \rho$ ．［，point at two－thirds height；probably $\pi \rho \dot{o}[$［．


 $\mu \grave{\eta} u ̛ \pi \nu o u[\tau] \cup \chi \in i v\left(\right.$ and the parallel passages Suppl．Mag．I 46．10－r， $47.10-\mathrm{r}, 48 \mathrm{~J} .23$ ），1516，LXI ${ }_{17}-8$ ；Suppl． Mag．I $43.8-9,45 \cdot 45^{-6}$ ，II 73 ii $5^{-6}$ ；and see D．G．Martinez，P．Michigan XVI pp．59－6r．
$\kappa$（ai）$\pi \in \epsilon \varphi \hat{\omega}(a$. ＇Even if hungry＇，to be connected with the preceding verb．
$\mu[$ ．Probably $\mu[\eta$ ，introducing a new prohibition
 （poetic word）or $\kappa \lambda$ deivauc（ $=\kappa \lambda$ ivauc；for $\imath>\epsilon$ ，cf，above 6 n ．）？If the latter，noun or verb？In the second case， the subject would be the god／demon（the subject of $\left.{ }^{e} v \in i p a c\right)$ and $k \lambda(v \omega \omega$ could mean＇bend，make inclined＇

8－9 $\theta a] \backslash \lambda \dot{\alpha} \mu \omega!?$
9 The obvious supplement would be $\pi \alpha_{\rho}[\theta]$ évov（and then possibly $\begin{gathered}\omega \\ \omega \\ \epsilon\end{gathered}!$ ）；other articulations，as $\pi a \tilde{[ }[\mathrm{c}]$

 24－5；see also i 13－4 and the metrical reconstruction at pp．I10－1，and cf．PGM IV 2927－8 and 2938－9 （ $=$ hymn．22．12，19）．For the frequent clausula $\tau \in \lambda \in \epsilon \tau \epsilon \in$ éav énaoo $\delta \dot{\eta} \nu$ or sim．，cf．above verso i 26 （with note） Faraone ClO NS

11－14 Charm to induce insomnia
II à $\gamma \rho]$ ］$\dagger \pi \nu \eta \tau \iota \kappa[6] v$ ，Cf，PGM VII 374 ，XII 376 ，LII 20.
 agrupnetikon without compare＇．The phrase shows that dxpurvฑrukóv，even if used as a substantive，preserved a strong verbal force（as is normal in adjectives in $-\tau \kappa \kappa \delta \dot{c}$ ；cf．L．R．Palmer，A Grammar of the Post－Ptolemaic Papyri I 37）．
 would be difficult to accommodate in a praxis．For burnt offerings，see W．M．Brashear，Magica varia $54^{-5}$ ．

15－19 Charm against insomnia．Other somniferent charms are Suppl．Mag．II $74.1-7$ and $96.5 \mathrm{I}-2$ Under the Empire we seem to see an increased appreciation of the blessing of sleep＇A．D．Nock，Gnomon 21 （r949） 228 n． 3 （＝Essays II 711），with references．
${ }^{15}$ crif $\eta$ ๆ．Here＇writing＇，＇text＇．See Suppl．Mag．I 23．1I n．；R．Merkelbach and M．Totti，Abrasax II 40 （PGM IV III5）．

16－18 Elements（with the exceptions of $18 \delta a \mu a \lambda$ and $17 \kappa \alpha[$ ，if not a miswriting for $\chi a[$ ）of the $\omega$ $\varepsilon \rho \beta \eta \theta-\log$ s（ $\mathbf{1} 6,18$ ）and the $\epsilon \rho \eta \kappa \kappa c-$ palindrome（17），for which cf．PGM，Vol．3（Index） $240-1$ and $279-80$ respectively．
${ }^{16}$ Пarat．The usual spelling is Пaratvak（or Пara月var）；cf．PGM，Vol． 3 （Index） 229 ．
 Mayser－Schmoill i13－4；F．T．Gignac，Grammar I 885
$\delta \delta i v a$ 个．See recto i 6 n ．above
20－25 Phylactery，probably intended to protect from bad encounters（men or evil spirits？）．
20 éav Bouh $\eta$ ．For this nexus at the beginning of a charm，cf．PGM VII 335，XII i79．The form in 4468

 the diffrent specics of plant named poôt, cf. LSJ s.v., and see J. André, Latomus ${ }^{15}$ (1956) 302. In PGM IV ${ }^{2232}$ the plant is cmploycd for a burnt ollcring in a praxas of a love charm.

22 кǎv. As far as one can judgc, fully equivalent to copulativc кai, as e.g. in I $120{ }_{5}$; P. Mich. VIII 477.38 . 23
5. This section ( $\lambda$ óyoc Aiyvatuci), though scantily preserved, is ncvertheless of intercst as an addition
to the exw examples of Eypptaz transcribed in Greek, and for its contribution to our knowledge of that littleknown stage referred to as pre-old Coptic (see J. Quaegebcur in The Coptic Encyclopedia 8 (1991) (go-i). We gratefully acknowledge the help of Professor S. Pernigotti with this part of the text.
avak. Ist pers. sing. personal pronoun, with formation in $a$ which in Coptic the Oxyrhynchite dial shares with Fayumic and Achmîmic (Sahidic anok). Probably we have here a case of self-identification of the sorcercr with a god/demon. For the common 'I am' predication, see D. G. Martinez, P. Michigan XVI pp. 92-4, with references (for anok $92-3$ ).
form of the Probably a noun or a proper name. It would be difficult to see it as a variant for $\alpha \nu \kappa$, the construct form of the ist pers. sing. personal pronoun in the following line.
${ }^{2} 4$ avk. Cf. the proceding note. See W. E. Crum, A Coptic Dictionary y ib.
a 25 a $\mu$ ad. ard pers. sing masculis.
the following note. ${ }^{\mu \nu}$. Possibly cquivalent to the Coptic Man (see W. E. Crum, A Coptic Dictionary 16 gb ; also W. Erichsen Denotisches Glossar ${ }^{158}$ ) and therefore the whole expression $\mu \nu \mu \nu$ might mean 'so-and-so (son/daughter of) so-and-so', i.e. $\delta \in$ iva $\delta \in i v o c$. Against the possibility of understanding $\nu \tau a \phi$ as the auxiliary of the and perfect, 3rd pers. masculinc singular and $\mu \nu \mu \nu$ as the verb listed in Erichsen, op. cit, 162 is the fact that the threc
sequences are written separately.

F. MALTOMINI

4469. Letter of Abgar to Jesus (Amulet)
62 6B.78/F(1-3)b
$5.3 \times 15 \mathrm{~cm}$
Fifth century

4469 is a new witness for the apocryphal letter of Abgar of Edessa to Jesus. The small papyrus sheet that preserves it, written along the fibres (the back is blank), is lacunose in its left centre with other smaller internal lacunae, but otherwise preserves all its edges complete. The tiny but thick unligatured script, slanting to the right, may be assigned to the later fifth century. The surface of the sheet is used to the full; there are, in fact, no margins at the top and sides-the lines, which slope strongly downwards to the right, begin at the very left edge of the sheet and run to the very edge on the right, such that there are many incorrect word-breaks ( $3,4,7,8,12,14,15,17,22$, 26, 27). The between-line spaces are also minimal. Only in the lower part of the text does the writing appear rather more relaxed, probably because the scribe realised that the sheet would in fact suffice for his requirements; the text actually stops 2 cm short of the bottom edge.

There are no lectional signs except for a double point in I6. Nomina sacra appear in $2,9,16,17$ and 38 . Phonetic errors are numerous. In 21 ff. there is a partially Coptic section, and in $35^{-8}$ there is a string of magical signs which we do not attempt to reproduce and for which the reader is referred to the plate.

On the back seven folds can clearly be seen. As the damage pattern reveals, the papyrus was first folded across its middle so as to bring top and bottom together, and then starting from those ends three further narrow folds were made. There is no sign of any vertical folding.

For literature on the Abgar legend, see H. J. W. Drijvers in W. Schneemelcher, Neutestamentliche Apokryphen. I, Evangetien (Tübingen 1987) 389; also A. Desreumaux, Histoire du roi Abgar et de Jésus (Tournhout 1993) I53-9. Three Greek papyrus versions of the correspondence were previously known: P. Ness. II 7 ( 6 th -7 th cent.) $=$ van Haelst 612 and P. Cairo inv. $10736+$ Bodl. Ms. gr. th. b. r (P) (6th-7th cent. $)=$ van Haelst 613 (both with Abgar's letter and Jesus' reply), and P. Got. 21 (6th-7th cent.) $=$ van Haelst 614 with Jesus' reply only.

4469 was obviously used as an amulet, a well attested use for the correspondence and especially for Jesus' reply (E. Kirsten, RAC IV (I959), s.v. Edessa, 589 ff.; van Haelst 612 and 614 (on the latter see H. C. Youtie, Scriptiunculae I 458) are probable examples). Unusual, however, is the apotropaic use of the Letter of Abgar on its own; equally unusual is the fact that the letter is accompanied by a personal request (for a Coptic parallel see A. M. Kropp, Ausgewählte koptische Zaubertexte II, no. XXV). This happens, moreover, in a peculiar way: at the point where the king begs Christ to cure him of his malady, the text of the letter by means of a slight change to a key word ( $\theta \epsilon \rho a \pi \epsilon \hat{c}<\alpha \iota$ ) slips into the request ('heal Epimachus...' $2 \mathrm{r}-25$ ). The possessor of the amulet thus substitutes himself for Abgar. Following this request, the letter takes up again from the point where it broke off, but stops somewhere in the damaged central part of the sheet. Thereafter, the personal appeal resumes, with magical elements and a quote from $P_{\text {salm }} 28$.

4469's main interest lies in its being an uncommon witness for the letter. As is known, the fundamental sources for the correspondence (which is preserved in numerous redactions in several languages: Greek, Syriac, Latin, Armenian, Coptic, Arabic, Persian, Slavonic etc.; see M. Geerard, Clavis Apocryphorum Novi Testamenti (Turnhout 1992) nos. 88-9, 299; for literary sources, E. von Dobschütz, Christusbilder. Untersuchungen zur christlichen Legende (TU 18, 1899) $158 *$ ff.) are Eusebius (Hist. eccl. I 13) who relates it with the assertion that he had translated it from Syriac documents kept in the archive of Edessa, and the Syriac text known as the $D$ (octrina) $A(d d a i)$, probably fifth century but with a third century nucleus (Desreumaux, op. cit. 33-6; ca. 400 according to J. González Núñez, La leyenda del rey Abgary Jesús (Madrid 1995) 65), edited by G. Phillips, The Doctrine of Addai, the Apostle (London 1876). The textual tradition of the correspondence was researched in depth by E. von Dobschütz. ('Der Briefwechsel zwischen Abgar und Jesus', ZWTh 43 (1900) 422-86), whose conclusions may be summarized as follows: Eusebius' text is a translation of a Syriac original, lost, which was also behind the Syriac redaction represented by $D A$; contamination between the two versions was responsible for all the subsequent Greek versions (which basically reproduced Eusebius but with more or less strong Syriac influences) up till the late Ep (istula) Abg(ari), compiled in 1032
according to von Dobschütz，which was a new translation made directly from the Syriac with only occasional Eusebian elements．

New papyrological and epigraphic evidence，not known to von Dobschütz，must modify this hypothesis（list of the inscriptions in Geerard，op，cit．66）．Some of the evidence presents major deviations from Eusebius and affinities with Ep．Abg．It had therefore been thought that as early as the second half of the fourth century a Greek reworking of Eusebius had been completed at Edessa，which would have been behind these witnesses and，later，Ep．Abg．（so F．Hiller von Gaertringen，Sitz，Berlin 1914， 817－28；see P．Ness．II 7，p．144）．Lastly R．Peppermüller（Vig．Chr． 25 （1971）289－301） on the basis of the papyrus van Haelst 6ı3 has demonstrated the existence of a Greek version of the Abgar legend independent of Eusebius，close to $D A$ but not a translation of it and probably witness to an earlier stage in the text＇s development，and the existence has been suspected of a Greek translation made directly from the Syriac original which was the common source also for Eusebius and the $D A$ ．We must then admit that the textual tradition is considerably more complex than von Dobschiutz had supposed．

4469 presents points of contact with the other Greek sources without aligning itself with any particular one．When it diverges from Eusebius，then a）it agrees or has points of contact with $D A$ ，or at least we can see or suspect the influence of the Syriac text


 agrees with witnesses different from $D A$ and with $E p$ ．Abg．or its tradition（r6－7（see n．）， $27^{-8}(\epsilon \dot{\alpha} \pi \sigma \kappa \tau \epsilon \hat{\nu} \nu \iota)$ ；or d）it agrees with witnesses different from both $D A$ and Ep．Abg．

 I leave out of account lines 29 end－30，very probably corrupted．Some of these differ－ ences are minor，but others are more significant and enable us to draw some conclusions． 1）Among the Greek witnesses earlier than the Menaia and Ep．Abg．，it is $\mathbf{4 4 6 9}$ that diverges most often from Eusebius；Syriac influence seems strong．2）Some elements of Ep．Abg，are already present in 4469；their origin remains uncertain．3） $\mathbf{4 4 6 9}$ contributes nothing to the issue of the Greek translation hypothesised by Peppermuller（see above）， given how little overlap there is between 4469 and the papyrus van Haelst 6ir．Above all，it is clear that the textual history of the correspondence is extraordinarily intricate， as will be further attested by the notes below．

Eusebius is cited according to the edition of E．Schwartz（1903）．DA is cited by G．Howard＇s translation（The Teaching of Addai（Chico 198r）7－9；the Syriac text has been checked for me by A．Catastini）．Other witnesses，unless otherwise stated，are cited in accordance with von Dobschütz，Briefwechsel（see above）．The translation of the letter of Abgar given here is basically that of K．Lake，Eusebius，The Ecclesiastical History I（Loeb CL，I926）89，with the necessary modifications where $\mathbf{4 4 6 9}$ diverges from Eusebius．The translation of the interpolated magical sections is given in bold type．


＇Tєроиса入и́ноєс $\chi$ аípı．а́кŋ́коа $\tau$－
à $\pi \epsilon \rho i ̀$ ĉ каi $\pi \epsilon \rho i ̀ \tau o ̂ \nu$ côv ia $\alpha a ́ \tau \omega-$

ßотаvôy каì фариа́коv，入ó $\%$ ，тv－

о̀̀с $\pi \epsilon \rho \iota \pi a \tau \epsilon i ̂ v ~ к а i ̀ ~ \lambda \epsilon \pi \rho о$ к̀с ка $\theta$－
арí̧ךс каì àка́ $\theta a \rho \tau \alpha \pi(\nu \epsilon \cup ́ \mu) а \tau \alpha$ каì $\delta \epsilon \mu o ́ v \iota a$ є̇к $\beta$ ó入入єєс каì тоv̀с

［v］ọ［vc］тávтac $\theta \in \rho a \pi \epsilon$ v́єıс $\kappa$－
aị $[\nu] \epsilon \kappa \rho о \hat{v}[c]$ є́кєí $\epsilon \iota \kappa$ ．каі $\tau \alpha \hat{v}-$
та ảкои́cac $\pi \epsilon \rho i ̀ ~ c o ̂ ̂ ~ к а \tau a ̀ ~ \nu-~$

 с $\tau \alpha \hat{v}[\tau] a$ ．［ $\left.{ }^{[ }\right] \delta \epsilon \varepsilon \nu \hat{\nu} \nu \rho \alpha ́ \psi \alpha c$ ह̇ $\delta \epsilon-$

$20 \quad \theta \epsilon \hat{i}[\nu] \pi \rho o ̣ c ~ \mu \epsilon \kappa a i ~ \tau \grave{\omega} \pi \alpha ́ \theta o c ~ o ̂ ~$
є $\chi \omega$ єкєөєраппєүє єпाмд－

Y тахү ina épaneycic emi－
Maxe пलнре ．［．．］M．．．．Tax̣ү тах［Y］




$[\subset \epsilon \mu] \varphi \eta \geqslant \stackrel{\kappa}{\kappa}[\alpha i] \mu \iota \kappa \rho о \tau \alpha ́ \tau \eta$ ，тьс ка－
［．．．．］Eठєcca каi Eбєcca $\epsilon$
［．．．．］．［．］．．．．．［．．］］оvт $a \pi \epsilon$ ．
［．］．．［．．］єста．［．］$\epsilon \nu \kappa \alpha \in \nu \delta \circ \xi a$
．оу ．［．］vov каì скєтасоข öть
coì $\dot{\epsilon} \lambda \pi i c ~ \eta \hat{\eta} \mu \hat{\omega} \nu . \theta \epsilon \rho \alpha ́ \pi \epsilon v \epsilon$
$35 \tau \alpha \chi v ̀ \tau \alpha \chi v ̀ \tau \alpha \chi v ́ . ~ \dagger \dagger \dagger$ characteres
characteres
characteres
characteres $\phi \omega \nu \grave{\eta} \kappa(v \rho i o) v \delta ı \alpha-$
ко́ттоутос ф入ó а тиро́c．$I \alpha-$
$4^{\circ}$
$\omega$ Caßaw $\theta$ E $\lambda \omega \epsilon$ A $\omega_{\omega \nu \alpha u . ~}^{\text {．}}$
$\left.\begin{array}{cc}v \\ \alpha]\end{array}\right] \omega \quad \phi$
－Ђ $\omega \eta$ 日 $\theta \rho \alpha \pi \epsilon \dot{\epsilon} \epsilon \iota$
$\beta \quad$ с $\tau \alpha \chi \grave{v} \tau \alpha \chi \grave{v} \tau \alpha \chi v ́$ $\dagger \dagger$




 Toosaioi 261．кaqayoryúsovava 31］．［，top of a vertical．］．［，first，perhaps $v$ ；then


＇$\dagger \dagger \dagger$ Abgar Uchama，the Toparch，to Jesus Christ who has appeared in the town of Jerusalem，greeting．I have heard concerning you and concerning your cures accomp－ lished by you，that without herbs and drugs，by word you make the blind recover their sight and the lame walk，and you cleanse lepers，and cast out unclean spirits and demons， and you cure all those who are tortured by long disease and you raise dead men．And when I heard these things concerning you I decided that it is one of the two，that you are God who came down from heaven or are God（sic！for Son）of God and do these things．Behold，I now write to beg you to disturb yourself and come to me and the suffering which I have heal Epimachus son of［ ］，quickly quickly quickly， heal Epimachus son of［ ］，quickly quickly quickly．Moreover I have heard that the Jews murmur against you and persecute you wishing to kill you．Now I have a city venerable and very small whose［name is（？）］Edessa and Edessa ．．．and in glory （？）．．．and protect，because you are our hope．Heal quickly quickly quickly $\dagger \dagger \dagger$（magical signs）．The voice of the Lord who splits the flame of fire （Ps．28．7）．Iaô Sabaôth Elôe Adônai．a f $\omega$ Health！（？），Help！（？）．Light，Life． You heal quickly quickly quickly $\dagger \dagger \dagger$ ．＇
 Philippi have Ovxaua romápXףc（Oukama，＇the black＇，also in DA），while in the other Greek witnesses the name
is absent．For $\mathbf{4 4 6 9}$ there are two possibilities：I）$\chi a \mu a u$ is a corruption of $O i_{\chi \alpha \mu}$ a（in my opinion the probable
 $3758{ }_{4} 6-7 \mathrm{n}$ ．）．גa，$\mu$ auromap $\chi \eta \mathrm{F}$ c would be an addendum lexicis．Whether there was a genuinc official corresponding th this word is another matter．


 Ep．Abg．（the inscriptions of Ephesus，Gurdja and Philippi and the Menaia have ${ }^{\hat{\varepsilon}}, \pi$ ．＇IEpocoえv $\mu \omega v$ ）．Euscbius

 Iepocá $\lambda \eta \mu a$ in the Protevangelium Jacobi（P．Bodm．V 41，6－7，P． 166 de Strycker）；＇Tepoucódrua in P．Lond．IV ${ }^{1} 45$ I． $38,60,75$ etc．（see P．Lond．IV，Index 4，p． 587 s．0．）．
aкฑ์коа．With DA＇I have hcard＇（cf．also＇allterer lateinischer Abgartext＇audivi；sec von Dobschütz， Briefwechsel 473,478 ）．Eusebius and most Greek witnesses have ${ }^{\eta}$ Kovecal $\mu 0$ ．

4．The second $\pi \in \rho \bar{i}$ is absent in the Greek sources，but $D A$ repeats the preposition．
 Dobschütr，Briefwechsel 458）．From DA ${ }^{\circ}(\ldots$ and＜concerning＞your healing）that you do not heal with drugs or roots；it is rather by your word that you give sight to the blind etc．＇（with which Ep．Abg．is in agreement），
 a different syntactic function），and b）the absence of the verb＇heal＇．As regards $a$ ）， 4469 accords with the Slavic version of Ep．Abg．（von Dobschutz，Christusbilder $205^{*} .80-2$ ）and also with the Arabic version（von Dobschutz，Briefwechsel 438.7 app．）and probably also with the＇altcrc latcinische Abgartcxt＇（von Dobschutz，
Briefwechsel 473）．In the Acta Thaddaei，a much－reworked version of the text，we find the syntactic frame of


 Ep．Abg．，Rufinus；for the inscription of Ephesus，see Grégoirc ad loc．）．
7 kai：om．by Euscbius．Agreement with $D A$（and with the Syriac translation of Eusebius，Rufinus（var．）， Georgius Monachus）．
$9 \pi\left(\nu \in \varepsilon^{\prime} \mu\right) a \tau a$ ．The abbreviation $\overline{\pi a \tau \alpha}$ for the nom．／acc．pl．is unusual，
Io $\delta \epsilon \mu$ óva（1．$\delta a u-$－）．So Euscbius，cocld．TER，and Ep．Abg．，codd．VXP，where it replaces Eusebius＇


12 đávaac is absent from the other Greek versions（cf．however Acta Thaddaei，quoted above $5-6 \mathrm{n}$ ．）but is present in Labubna＇s Armenian translation of $D A$（I owe this information to A．Orengo），
13－14 каì тav̂ra．Eusebius has каĭ тầтa đávra along with most of the Greck vcrsions；4469＇s omission shared by $D A$ and ED．$A b g$ ．



 $\left.{ }^{\tau} \alpha \hat{0} \tau a\right), D A$ ，and $E p$ ．$A b g$ ．Of the Greck texts only Georgius Monachus shares with 4469 the omission of kaì with Toleic qầra，but the me sentence structure is found in the Slavic version of Ep．Abg．，sec von Dobschutzz I6：\％Euschius ha
$n$ is shared by the Arabic version ni），see von Dobschuz，Brifwehhsel 439 ected $\bar{v}$ ．
 Ep．Abg．codd．VP，which however present a corruptcd text），but 4469 s version seems presupposed by the Syriac translation of Eusebius，see von Dobschutz，Briefwechsel 430， 456.
${ }^{18}\left[{ }^{[ }\right] \delta^{\delta} \epsilon v \hat{v} v$ ．Unique，but $i \delta o \hat{v}$［ in the inscription of Philippi and $i \delta o \dot{v} \tau o i v v v$ variant in some MSS．of
 inscr. of Gurdja, P. Ness. II 7 , Menaia) or $\nu$ £ิ (Georgius Monachus).

19-20 rai $\dot{\epsilon} \hat{\epsilon} \theta \epsilon \in[\nu]$ : om. Euscbius and other Greek versions. The fuller text as in $\mathbf{4 4 6 9}$ (a distinctive mark of Syriac origin according to von Dobschutz, Briefwechsel 460,462 ) is to be found in the Syriac translation of
Euscbius, in the Menaia, in some MSS. of Ep, Abg. and in the Coptic tradition (see von Dobschatz, Briefwechsel Euscbius, in the Menaia, in some MSS. of Ep, Abg, and in the Coptic tradition (see von Dobschatz, Brieffechsel $445 \cdot 29-30,446.44-45 ;$. E. Drioton, ROC 20 (1915-7) $3^{15} 5-7,341$ ) and is probably to be restored in the
papyrus van Haelst 113 $_{3}$ (R. Peppermuller, Vig. Chr. 25 (1971) 297).

21-25 Greek-Coptic section which interrupts the letter of Abgar with a personal request (see introd.) the interests of continuity
${ }_{21} \epsilon K \varepsilon$-. Coptic 3 rd future, with imperative force.
$21-22 \epsilon$ שाımaxe (also 23-24). The ending in $-\epsilon$ is frequent in the Coptic rendering of Greek names in -oc and -toc; see G. Heuser, Die Personennamen der Kopten I (Leipzig 1929) 90; CPR XII, p. 28.
$22 \lambda[c .4]$. 1ג, the name of Epimachus' mother. We might have supposed that the name recurred in 24, but the traces in the two lines seem incompatible (cf. app. cr.). Did 22 supply the name of Epimachus 22-23 24 the name of his father?
 ". Kropp, Aug apprische Zaubertexte I, C 106.
B. G. Mandilaras, The Verb in the Greek Non-literary Papyri, $\S \S 587-9 ;$ H. C. Youtie, Scrittiunculae posteriores 349, 478.
24. See $22 n$.

25 kal added before 'Iovôaioc Eusebius and other versions (some also add ol'). In its omission 4469 agrees principally with $D A$.
${ }^{26-27} \kappa\left[a i \delta_{\omega \omega}\right]$ Kovect ce: om. by Eusebius. Present in $D A$ and also in the inscription of Gurdja (as proposed by J. G. C. Anderson, FHHS 20 ( 1900 ) $157-8$; see also Studia Pontica III, Brussels 1910 , 198 ff ), the (1915-7) 3 5 5, 341).
${ }^{27}$ Roviósevevou. So the inscription of Gurdja (cf. also the 'alltere lateinische Abgartext' volentes; see von Dobschutz, Briefwechsel 474). кai Poídovoat in Eusebius and elsewhere.

 (from Boviópevoc) translates as 'and are secking to crucify you in an effort to destroy you'
$28 \hat{\epsilon} \mu \dot{\eta}$ scems untenable. $\mu \circ$ in the rest of the Greek witnesses.

 but is unique in offering the order $\epsilon \epsilon \mu \nu \bar{\eta} \kappa \alpha i \mu \kappa \kappa \rho 0 \sigma \alpha \dot{\gamma} \eta$ (see the following n.).
$29[c \epsilon \mu]$ p $\eta \kappa[\alpha i]$ : the reading is very conjectural. While the traces of the first letter suggest $\nu$, all one can say of the scanty remains of the next two is that they are not incompatible with $\eta \kappa$; besides, there is room for four letters in the initial lacuna. On the other hand, the inversion of the two adjectives seems the most natural and economic solution, and the palaeography is not against it.
 ${ }_{\text {apecécel }}$ ), the rest of the Greek witnesses. $\mathbf{4 4 6 9}$ will not accommodate this. On the other hand the beginning of Jesus' reply in the inscription of Edessa, P. Ness. II 7 and Ep. Abg. (and cf. also the Coptic version, see von Dobschutz, Briefwechsel 446.58 ; E. Drioton, ROC 20 (1915-7) 319) runs paкáptoc eil Av̌讠ape (cv P. Ness.
 (written $\kappa \alpha[\lambda i \tau \epsilon]$ ? the space will hardly admit six letters). If so, 4469's text could be due to a saut du meme au mème ( $\left.{ }^{\eta} \tau \kappa \kappa \sim \ddot{\eta} \tau \tau c\right)$, supposing it was transcribed from a copy which supplied the correspondence in full.
30 kai "Edecca. From here on the text has no parallels in the known versions. Comprehension is no
helped by our not knowing where the magic section that follows (recognisable from 33) actually began. kai "Eठ¢ecca finds an echo in Jesus' reply in the Coptic tradition (von Dobschütz, Briefwechsel 446.6 '(...) und Edessa sei gesegnet auf ewig (...)'), but this passage is not contiguous with that mentioned in 29-30 n.
 31 ]rovi $\eta$, intractable. None of the few words ending -rovi nor articulation 〕זov $\tau \hat{\eta}$ scem appropriate here. Possibly error for |ramp?

 be unlikely.


 35 An apparent fourth cross is
$3^{8-39}$ фwivi-rupóc. Ps. 28.7. Ps. 28.3 is used in the amulet van Haelst 129
39-40 Iaw Caßaw Eג Ene Aס $\omega$ vaı 'Yahweh of the armies, God, my Lord'. The series is frequent in magical texts, but generally in the order I. C. A. E. (e.g. PGM XII 285; XXXVI 42; 3.2; A. Delatte-Ph Derchain, Les intarues magrques greco-egyptiennes (Paris 1964) no. 365).
(ina) at the ends of its cross-bar; upsilon above and to the left probably stands for if letters $A-\Omega(A$ lost in Epigrafia greca IV (Rome 1978) 412, 510,549 ). The beta (ex corr.?) below the horizontal (line May stand for
 ${ }_{110-1}$; cf. also the explanation of beta in $\theta \beta$ (see P. Heid. IV 333.1 comm.).
$\phi \omega \bar{\zeta} \zeta \omega$. For this frequent formula (its cross layout also frequent), sec e.g. E. Peterson, $E I \Sigma$ © $\triangle O O \Sigma$ (Göttingen 1926) 38-41, 128; W. Deonna, Genava 22 (1944) 135; B. Lifshitz, Rev. Bibl. 77 (1970) 78-9; M. Guarducci, Epigrafa greca IV, 439-40; D. Feissel, BCH 104 (1980) 504

4 II $\theta \in \rho a \pi \epsilon$ vécic. The healing is no Mag. I 34 A ${ }_{2-3}$ (cf. 35, 8) and P. Köln VIII 340 b, fr. A 8-9.
 A character?
F. MALTOMINI

## 447. Oragular Question

No inv. no.
$7.3 \times 4.2 \mathrm{~cm}$
Second or third century
This small complete slip of papyrus, written along the fibres, apparently preserves a question to an unnamed oracle. The petitioner is equally unnamed, nor does the petitioner's question have the subject of its verb identified.

Greek oracle questions from Egypt were listed by M. Totti, Ausgewählte Texte der Isis- u. Sarapis-Religion (1985) 130 ff. Add LV 3799, with bibliography additional to that in Totti. Further bibliography in L. Papini's discussion of the text structure and the temple practices involved, Anal. Pap. 2 (1990) 11-20; see p. 15 on the absence of the name of the god appealed to. See also W. Clarysse, Atti XVII Congresso (Napoli, 1984) III 1348-9, and two more examples are in $Z P E \quad 70$ (1987) 104 and PSI XX Congr (1992) no. 3; also $Z P E$ III (1996) $183-7$.

The upright crude script is mostly unligatured. Attempted $\mu 0 \iota$ in 3 is particularly clumsy. It may be the work of the petitioner rather than a temple scribe. The back is blank.
$\vec{\eta} \tau \hat{\omega} T \hat{v} \beta \iota \epsilon \hat{i}-$
сє́ $\rho \chi \epsilon \tau \alpha i \not \mu \circ$,
тои̃тó $\mu \circ \stackrel{\iota}{\text { ón- }}$
сеис.

1 1. el
If in Tybi $x$ will come to me, give this to me.
$3^{3-4}$ décecc. The form is unparalleled in oracle questions. Most usual is the form סóc, in P. Köln IV 202
 $\chi$ pmuaricare rồro (P. Monac. III 117). The verb form could be seen as an example of the future indicative
as imperative in the apodosis (Mandilaras, The Verb in the Greek non-literary Patpri $\S$ so6). Demotic qucstions as imperative in the apodosis (Mandilaras, The Verb in the Greek non-Vilerary Papyri § 396). Demotic questions usually use an imperative.
D. MONTSERRAT
4471. Omens from the Rising of Sirius

The fragment preserves most of the top of a column of text in a rounded informal hand, with upper margin to 1.2 cm . A single $\epsilon$ at the left edge, 2.5 cm to the left of line ${ }^{15}$, is all that remains of the preceding column. The front is stained with offsets at an oblique angle, transferred from the preserved writing at a time when the papyrus was folded on itself, and contributing no additional readings. The back is blank except for faint traces of offset.

The text consists of astral omens, or what in the broader scheme of classical astrology would be classified as 'general astrology'. The protases extant in lines 6 and I5 take the form, 'if $x$ rises in $y$ ', where $x$ is an unnamed heavenly body and $y$ is a sign of the zodiac. Since the signs in question, Taurus and Gemini, are consecutive, it seems probable that the text originally considered all twelve signs in order. As we shall see, the protasis of line 15 is almost certainly to be interpreted as 'if Sirius rises when Mars is in Gemini', and the simplest hypothesis is to assume an analogous meaning for the rest of the series. The apodoses describe events of national importance in Egypt, Syria, and Media: flooding, rains, crops, the welfare of various animals, the king of Egypt, discord and war.

The beginnings of this variety of prognostication are ultimately to be traced to Mesopotamian omen texts such as the great series Enuma Anu Enlil, in which events seen in the heavens are correlated with political and climatic predictions for the Near Eastern kingdoms (D. Pingree in Mesopotamien und Seine Nachbarn 2.613-631). The oldest known astral omens from Egypt are the collection of eclipse omens in a Roman-period demotic papyrus, the original composition of which can be placed with some confidence
in the late sixth or early fifth century bc, during the period of Persian domination (R. A. Parker, A Vienna Demotic Papyrus on Eclipse- and Lunar-Omina 28-30). Only one other Egyptian text of this kind has been published, the demotic P. Cairo 31222 (Roman period, G. R. Hughes, 7 NES 10 (1951) $256-261$ and pl. x), although a few pertinent unpublished demotic and hieratic papyri of Ptolemaic and Roman date have been identified (C. A. R. Andrews in J. Johnson, Life in a Multi-Cultural Society 13-14, and personal communication of Dr J. F. Quack). In Greek, one may compare XXXI 2554 (third century), 4472, P. Stanford inv. G93bv (second century, J. G. Shelton, Ancient Society $7(1976$ ) 209-213) and chapters $21-23$ in the first book of the astrological treatise by Hephaestion of Thebes (fourth century), retailing doctrines of 'the Egyptians of old'. More surprising is the recurrence of the same kind of material in a Syriac "Treatise of Shem', which with its allusions to the Romans and their 'king' cannot antedate the first century bG (J. H. Charlesworth, Bull. John Rylands Library 60 (1977) 376-403). These omen texts represent a tradition distinct from the better-known personal horoscopy that dominates the astrology of the Roman period, in the broad but at the same time parochial scope of the forecasts (it is hardly plausible that they circulated much outside of Egypt), and also in the restricted repertoire of celestial phenomena that they exploit: chiefly the times and appearances of eclipses, and the signs of the zodiac in which the planets are found on the date of Sirius' rising.

The most striking feature of $\mathbf{4 4 7 1}$ is the almost word-for-word correspondence of the apodosis in lines $16-22$ to P. Cairo 31222, lines $9-10$. It is this match of apodoses that allows us to identify the nature of the protases in 4471. The text in P. Cairo 31222 is headed, 'The influences of Sothis' (i.e. Sirius), and consists of a series of omens with protases following the pattern, 'if it rises when the moon is in Sagittarius'. One omen text is given for the moon and each of the five planets as well as an unidentified seventh object. The fourth omen, 'if it rises when Mars is in Gemini', bears the apodosis reproduced in the Greek papyrus. The circumstances that the protases in 4471 are elliptical, naming the zodiacal sign but not the planet, and that the two preserved instances pertain to consecutive signs, shows that we are probably dealing with part of a general manual that listed the outcomes for all the possible signs for each planet in turn. P. Cairo 31222 would then contain extracts from a similar manual, and the most likely principle of selection is that those omens were chosen that fitted the planetary positions on the date of Sirius' rising in a particular year (this explanation was not considered by Hughes in his edition). Adopting the conventional date Epeiph $25=$ July ig for the rising of Sirius, we find from Tuckerman's tables a good match with the data in the papyrus for AD I 34

Our texts illustrate the tendency for omen literature to survive in use long after the circumstances that they foretell could no longer be interpreted literally; for there can scarcely be doubt that the omens in $\mathbf{4 4 7 1}$ and P. Cairo 31222 were originally composed, in substance at least, in the Egyptian language in the Hellenistic period. An absolute terminus a quo is set by the use of the zodiac, which first appears in Babylonian texts in the middle of the fifth century BC ; and the political and geographical references
in the apodoses only fit the time of the Lagids. The mention of the king of Egypt suppressing a revolt in Syria seems even to allude specifically to the events surrounding Alexander Balas c. ${ }^{150-1} 45$ (P. Derchain, in La Divination en Mésopotamie ancienne ${ }^{1} 47{ }^{-1} 57$ ). Before the papyrological evidence had come to light, E. Riess (Philologus, Suppl. 6, 327-394) included Hephaestion's chapters and similar Greek material among the fragments of the pseudepigraphic astrological writings of Nechepso and Petosiris, which were thus supposed to have effected the passage of the Egyptian doctrines into Greek (see Pingree, Dict. of Scientific Biography 10. 547-549). 4471 suggests that the transmission might not have been restricted to a single channel, taking place instead through the translation of fluid and perhaps anonymous compilations as late as the Roman period.

$$
\begin{aligned}
& \text {. . . . . . .] } \nu \eta \delta \in \epsilon \tau \iota \in \xi \in \iota \text {. [ }
\end{aligned}
$$

$$
\begin{aligned}
& \text { ] є́єта८ сєітоv } \tau \epsilon \iota \mu \iota \omega ́ \rho \alpha \text { к }[\alpha i
\end{aligned}
$$ . .] $\pi \rho o \beta a ́ \tau \omega \nu$ ì $\chi \theta$ v́ $\omega \nu$ oै $\nu \omega[\nu$ . . ] $\omega \nu$ Өávatoc.




 $\tau \hat{\omega} \nu c \pi \epsilon \rho \mu \alpha \dot{\alpha} \tau \omega \nu$. $\epsilon \subset \tau \alpha \iota \delta \grave{\epsilon} \tau \alpha \hat{v}[\tau \alpha$ €̇v $\tau \hat{\eta} \tau \hat{\omega} \nu M \hat{\eta} \delta \omega \nu \chi \omega ́ \rho \alpha$. каì $\delta$







 $\dot{\alpha} \pi \sigma \lambda_{\epsilon} \in \hat{\imath ̂}$ av̉гoúc. o. [ $\nu 0 c \dot{\alpha} \kappa \alpha \tau \alpha \subset[\tau \alpha] \tau \eta{ }^{\prime}[c \in \iota$
ơ $\mu \eta \geqslant \beta \rho \epsilon ́ \xi \eta \quad \alpha$ [
$\alpha u ̛ \tau \hat{\omega} y \dot{\alpha} \pi^{\prime} \alpha u ̛ \tau[$
${ }^{\prime}$ à̀ $\nu$ [
‥ it(?) will increase ... there will be high prices of foodstuffs and(?) ... of livestock, fishes, asses, ... death. 'If (Sirius) rises (with Mars) in Taurus, there will bc a great flood, and the crop will be submerged(?) will occur in the country of the Medes. And the king of Egypt will be in great evils. The herds of cattle will destroy the crops in the water. If (Sirius) rises (with Mars) in Gemini, some people ... will revolt in Egypt o the country of the Syrians, and the king of Egypt will set out with his army and destroy them. ... will b disaffected ... there will not be rains ... If ...'
${ }^{1-5}$ These lines should belong to the omen for Sirius's rising with Mars in Aries. There seem to be no parallels between the preserved part and Hephaestion's omen for this situation $(\mathbf{I} 23$, ed. Pingree p. 71), whic efers only to political affairs in Elam ('Eגv ${ }^{2}$ aic), i.e. Susiana
 quickly written cursive forms than elsewhere in the papyrus; $\epsilon \rho$ is also conceivable.
 in the present context.
3 Cf. P. Cairo 31222, 7, 'Sced (and) grain will be high as to price (in) money' (Jupiter in Sagittarius) and 18 , 'Grain will be high as to price [(in) money]' (Mercury in Gemini). 4-5 Presun
animal (birds?).


 seems The traces at the end of the line ar
 with unassimilated $\nu$ and distortion of the vowel, see Gignac, Grammar I 168 and 267 ).
II Media is among the countries affected by the Egyptian solar eclipsc omens in Hephaestion I 21 (ed Pingree vol. $1,54.26,60.12,62.19$ ). Notwithstanding this retroactive statement, lines $6-\mathrm{ro}$ seem to describe events more appropriate for Egypt.
${ }_{16-20}$ Cf. P. Cairo 31222, 8-10, 'If it (Sothis) rises when Mars is in Gemini: some men will rebel [in] Egypt and in the country of the Syrian. The king will proceed to them with his army. He will fight.' Hughe (p. 259) adopts in his translation a different restoration, 'Some men will rebel [against the king of] Egypt in the country of the Syrian', but suggests the above reading as an alternative in n. 39, p. 263. The verb translated as fight is uncertain (n. 13, p. 260 )

 'The sky abundant with rain will not be able to occur in the country of the Syrian'. Hughes (n, 45, p. 263 ) notes that Hephaestion's omen parallels the demotic papyrus' prediction of both revolt and lack of rain in
Syria. Our text may be merging two versions of this omen, since the verb in line 21 , if it pertains to Syria Syria. Our text may be merging two versions of this omen, since the verb in line 21 , if it pertains to Syria,
as it does in Hephaestion, effectively summarizes the content of $16-18$. Note also akaracracia in 2554, unnumbered fragment (p. 77, n. I), I.

24 The beginning of the omen for Sirius' rising with Mars in Cancer.
A. JONES

## 4472. Astrological Forecasts

A $19 / 2(b)+(c)$
$10 \times 17.5 \mathrm{~cm}$ (ffr. r) $10.5 \times 11 \mathrm{~cm}(\mathrm{fr} .2)$
Second century
The text on the front of these fragments is a second-century register or account mentioning areas of land and quantities of grain. The omen text on the back is written in lines sloping upward to the right, in a hand that, although looking somewhat older than the front, is presumably also to be dated to the second century. Fragment I, which
preserves 3 cm of margin at the top, belongs above fragment 2 , with their right edges in line; line 12 in fr. I might have been the same as line $I_{5}$ in fr. 2 , or one or more lines may have intervened. Part of a single column of text is extant, with no clear beginnings or endings of lines, although some stretching out of letters, especially in line 20, suggests that the ends of lines might have roughly coincided with the present edge of the papyrus. If so, the longer restorations at the ends of some lines in our transcription would have belonged to the beginnings of the next lines. That well over half of each line is lost can be seen from fragment I line 9 , which has part of a known formula; obviously there is no possibility of restoring connected sense.

The text is very like XXXI 2554 in contents and arrangement, so that both are now seen to be representatives of a standard type of text giving forecasts of political and climatic conditions for a series of years. The section for a single year began with astronomical and calendrical remarks, apparently pertaining to the date of Sirius' rising. After this came a longer section containing the miscellaneous predictions, followed by instructions for preparing a 'charm' (à $\lambda \epsilon \xi \eta \tau \eta \dot{\eta} \rho \iota v)$ for the year. Lastly, a prediction is made of the level of the Nile flood in 'divine' cubits, palms, and fingers.

These annual forecasts are part of the same stream of Egyptian general astrology as 4471; but whereas that papyrus adheres to the traditional (ultimately Babylonian) pattern of omen texts cast as conditional sentences, the presentation in 4472 and 2554 is no longer hypothetical. In his introduction to 2554 J . R. Rea was led by the specific and possibly dangerous character of some forecasts in 2554 (the Nile's rising and the death of the 'king') to suspect that the ostensible prophecies were in fact retrospective (similarly Shelton, Anc. Soc. 7 (1976) 210-21 I). Ex eventu fabrication seems less plausible now that we have another example following the very same plan from a century earlier, as well as texts such as 4471 and (for the Nile's rising) 4473 that were surely meant to enable one to make these predictions by means of astronomical observations or calculations. This casts doubt on attempts to date these prophecies according to their agreement with known historical events.
Fr. I
]. $\kappa \alpha \tau a \lambda \in i[\psi] \epsilon!$ є́aṽô [
] cuvóóou kai ov̉ ímoт. [

]. $\theta$... $\epsilon$ [. .] ]орфо! є́ Хоvса [




] $\mathfrak{e} v i \tau \hat{\varphi} \nu \tau \hat{\eta} c C \dot{\omega} \theta \epsilon \omega c \mid$


]. . $\dot{v} \pi a \rho \chi[$
]. [. .]. . [
]. [

Fr. 2
$15] \alpha[$
]. $\operatorname{\iota ac}[$
]. $\nu \in \xi[$. . ]! каi oi ìx $\theta$ v́єc каi [
] $\theta \dot{\eta} \subset \in \tau \alpha[\iota \tau \alpha] \rho \alpha \chi \eta े ~ \kappa \alpha i ̀ ~ \alpha ̉ \kappa \alpha \tau \alpha c \tau \alpha c i ́ a ~[~$
$\pi \alpha \nu \eta] \gamma \dot{v} \rho \in \omega \subset$ [.]. $\nu \tau \omega \nu \dot{\alpha} \nu \alpha \tau \alpha \theta \eta \eta^{c}<\nu[\tau \alpha \iota$

]. . . каì $\varphi[.]$.$c é \pi \iota \pi \epsilon c \in \hat{\imath} \tau \alpha[\iota$

]avє . . . [. ..]. [. .]. . . $\operatorname{vov} \boldsymbol{v}[$
]..[.].[
]. . . .
$7 \pi_{\eta}^{\chi} ; \pi \hat{\alpha}(b i s)$
 phrases in Hephaestion.

2 In the midst of the prophecies, cúvodoc is more likely to refer to some sort of assembly or mecting than to an astronomical conjunction.

3 Perhaps a painted figure or statuette is meant (rathcr than a zodiacal sign). This could be part of a


For 'divine cubits' ff note to $\mathbf{2 5 5 4}$ I ii 17 and $\mathbf{4 4 7 3}$ introduction Ranges of valucs
he flood are predicted in 2554 unnumbered scrap $5($ p 77 notc I) and probably ii valucs for the peak of 8 Perhaps the iota at the beginning is the end of an adicctivc. Herc xomuationct is prob

9. One of the heavenly bodies (the moon?) is situated in one of the decans, probably on the date of Sirius' rising beforc the beginning of the year in question. The complete formula would have becn $\delta \delta \dot{\epsilon}$ троүєүра $\mu \mu \dot{\epsilon}$ the decan (cf. $2554{ }_{3}$ iii $x^{4}-15$ and 4 iii $\mathrm{r}-2$ ). This was presumably the basis on which part or all of the prognostications were made. See $\mathbf{4 4 7 4}$ introduction and $\mathrm{i}-2$ note.
ro Comparison with 25543 iii 16 -18 shows that this was part of an equation of dates in the old
 quation appears to be, first, between thc date of Sirius' rising in the reformed calendar (Epeiph 25?) and its
equivalent in Thoth (day number lost) in the old calendar, and secondly, between the first of Theth in the old calendar and its cquivalent in lost) in the old calendar, and secondly, between the first of Thoth in the (p. 82), these synchronizations would fit any year between AD 140 and 239 . Now during the course of the second century, the equivalent in the reformed calendar of Payni is in the old calendar shifted from Pachon II (June 5) in the reformed calendar shifted forwards from while the equivalent in the old calendar of Payni 11 (June 5) in the reformed calendar shifted forwards from Epciph 12 to Mesore 7 . Since these dates have
no obvious calendrical or astronomical significance, my best guess is that the text reformed Epeiph 25 (the rising of Sirius) in the old calendar, and, for symmetry, the equivalent of old Epeiph 25 in the reformed calendar. Old Epeiph 25 was reformed Payni II in the years AD I52/153 through I55/ I56. The last words of the line are probably the beginning of $\hat{e} \nu \tau o v\left(\tau \tau \psi \uparrow \hat{\varphi}{ }^{\prime \prime} \tau \epsilon \epsilon\right.$.

| 18 The words are common in this genre of text; cf. e.g. 2554 unnumbered scrap lin |
| :--- |

ephaestion I 21 (ed. Pingree 63 line I) where áкатастасía and тapax́ occur together. 1 and I ii 4 , and
20 The subject is probably the king, who is to be either slain or revolted against by his own men.
21 One could read $p[$ [óco]

4473. Astrological Forecasts of the Rise of the Nile


#### Abstract

ro6/2(a) $19.5 \times 32 \mathrm{~cm}$ Second/third century


The text is written across the fibres in a distinctive strong serifed sloping hand on the back of a second century agricultural account. The main fragment (composed of two not quite contiguous pieces) preserves part of a column with an upper margin of 2.5 cm and a lower one of 6 cm . Line beginnings are separated by a 1.5 cm intercolumnium from negligible traces of a preceding column. The remaining debris includes four small strips, not transcribed here, preserving a few letters from consecutive lines that apparently belong to another column of the text.

The script is an exotic attempt at a broad, slanting version of the formal mixed type, showing influence of the severe style (such as Turner GMAW no. 84, Roberts no. 2Ia) with, however, many inversions and idiosyncrasies. To the severe style may be accorded the spiky descenders of tau, rho, upsilon, etc., the straight backed epsilon, the tendency of the cross-stroke of nu to the horizontal, and possibly also the flamboyant, forward sweeping arms of alpha and kappa. But traces of documentary forms remain in beta, eta, nu, ligatures (omega-nu in 6, delta-rho in 17) and bulbous omega with a distinctly raised centre rather than the flat bottomed version of the severe style. Idiosyncrasies (suggestive of non-Egyptian hands?) include: the triangular bowl of phi with flat top, the preposterous baroque xi in 13 , and most of all the habitual decorative addition of finials hooking back to the left (as in the Pierpont Morgan Iliad, Schubart

GP Abb. 95) not only on the tops of uprights (as commonly in the severe style) but even on round letters like omicron ( 13 ad fin.), epsilon, and sigma (ir ad fin., 29 Kvvóc). For another astrological text cast in a bizarre, stylized hand, see Roberts I6c (horoscopes), equipped with decorative serifs reminiscent of Rustic Capitals.

In lines $1-20$ the text follows a repetitive structure with the name of a zodiacal sign followed by statements that each in turn of the first, second, and third decans 'brings about' ( $\phi$ é $\rho \in \iota$ ) a stated number of cubits, ranging from 9 to 15 . The signs appear in order, starting with Taurus (restored) in line 1, and ending with Pisces in line 19. A section for Aries must have occupied the last lines of the preceding column. As usual in astrological texts, the decans refer to $10^{\circ}$ segments of the zodiacal signs; their Egyptian names do not appear here. The significance of the cubits is less obvious. An astronomical unit called $\pi \eta$ रुरc was used by Hipparchus to measure apparent distances, i.e. greatcircle arcs, between heavenly bodies; it was apparently supposed to be equivalent to $2^{\circ}$, and was an adaptation of the 'cubit' (KÙŠ) of Babylonian astronomy (Toomer, Ptolemy's Almagest 322 n. 5). There seems to be no plausible rationale, however, for associating arcs of twenty to thirty degrees with the decans.

If, on the other hand, the cubits of our text are mundane units of length, they must surely refer to the level of the Nile in flood. The unit is appropriate, since the Nile's depth was traditionally measured in cubits (specifically a 'Nile cubit' of 28 digits, otherwise called $\beta$ acı $\lambda \iota \kappa$ óc or $\theta$ єioc, cf. Heron, Teubner ed. IV p. 190 and 25541 i 17 note), and 12 to 16 cubits was reckoned to be the normal range at the peak of the flood (Pliny, $N H$ V x 58). Astrological predictions of the flood level are frequent in texts of the genre of $\mathbf{4 4 7 1}$, typically in broadly descriptive terms; but the forecasts for specific years at the end of each section of $\mathbf{2 5 5 4}$ and $\mathbf{4 4 7 2}$ are precise numbers of 'divine cubits', palms, and digits. The notion of making river levels an object of astrological divination probably spread from Mesopotamia. It is noteworthy that the Babylonian astronomical Diaries regularly record the changes of level of the Euphrates in cubits and digits at the end of each month from the sixth century bc onward (Sachs and Hunger, Astronomical Diaries I pp. 34-36).

The scheme of $\mathbf{4 4 7 3}$ probably worked as follows. On a particular date preceding the peak of the flood, probably the rising of Sirius in mid July (cf. lines 23, 29, and 25543 iii 14 note), one observed or-more likely-calculated the position of one of the heavenly bodies in the zodiac, and read off the number of cubits corresponding to the appropriate decan in the list. The heavenly body, which is not named in the preserved text, must have been capable of occupying any part of the zodiac on that date; this eliminates the sun, Mercury, and Venus from consideration. The most likely candidate is the moon. The prescribed numbers of cubits are summarized in the table below; I have not succeeded in finding a pattern in them. The apparently random fluctuation might suggest an origin in actual records of river levels from past years, such as we know were kept in the Roman period (O. Pearl, TAPA 87 (1956) $5^{\text {r-5 }}$-5).

| Sign | Decan |  |  | Decan |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | Sign | 1 | 2 | 3 |
| Aries | ? | ? | ? | Libra | $12^{2 / 3}$ | ? | $13^{2 / 3}$ |
| Taurus | $13^{1 / 3}$ | ? | 9 | Scorpio | $14^{2 / 3}$ | ? | $13^{2 / 3}$ |
| Gemini | I $3^{1 / 3}$ | ? | $12^{2 / 3}$ | Sagittarius | 14 | I I $1 / 3$ | $14^{1 / 3}$ |
| Cancer | 15 | ? | $14^{1 / 3}$ | Capricorn | ? | $14^{2 / 3}$ | ? |
| Leo | ? | 14. | $13^{2 / 3}$ | Aquarius | ? | $12^{1 / 3}$ | $14^{1 / 3}$ |
| Virgo | ? | $13^{1 / 3}$ | ? | Pisces | 13 | $\mathrm{IX}^{2} / 3$ | 14 |

The continuation of the text in lines 22-30 sets out instructions for an astronomical or astrological computation, perhaps related to the foregoing prognostications. There are enough parallels with O. Bodl. II ${ }_{21} 6$ (c. AD 257) to make it appear probable that they describe the same procedure, which turns out to be directed at least in part to finding the moon's approximate location in the zodiac on the date of Sirius' rising.

Tav̂














$\chi \in \iota c[\bar{\ldots}, \bar{\beta} \delta \epsilon] \kappa \alpha \nu \hat{\omega} \phi \epsilon ́ \rho \epsilon \iota \pi \eta \chi \chi \in \iota c \bar{\delta} \bar{\beta}^{\prime} . \bar{\gamma} \delta \epsilon \kappa \alpha \nu \hat{\omega} \phi[\epsilon \epsilon \rho \epsilon \iota$


$i \delta \gamma^{\prime}$. ['I $\left.\chi \theta \dot{v} c\right]!\bar{a} \delta \epsilon \kappa \alpha \nu \hat{\varphi} \phi \epsilon[\rho] \epsilon[\iota] \pi \eta \prime \chi \epsilon \iota c \overline{\iota \gamma}, \bar{\beta} \delta \in \kappa[\alpha \nu \hat{\omega} \phi \epsilon \in-$

тє́̀oc $\epsilon$ [.]. . $!$
]. [
$\dot{\omega} \subset \delta \in \hat{i} \in \tilde{v} \rho \in \in \hat{i} \nu \tau o[$
${ }^{\dot{\alpha}-}$

${ }_{\alpha} \rho \iota \theta \mu \circ \hat{v} \tau \hat{\omega} \nu \dot{\eta}[\mu \in \rho] \hat{\omega} \nu \pi[$
] $\quad \mathrm{k}[$

$\beta$. . ov vac. тоóc $\theta \epsilon c$ т[
]. $\delta \delta \in \pi \sigma$. [
éç兀८ $\tau \hat{\omega} \nu \tau \in c c a \rho a \kappa o v[$



30 т. єХоขо[ ] тоv̂ $\pi \rho о \pi а \rho а к є \iota \mu \epsilon ́ v o[v] ~$
5 1. $\delta \in \kappa a \nu \hat{\omega}$
81. Парө́́иoc
$10 \in$ of first $\delta \epsilon \kappa \alpha \nu \hat{\varphi}$ corr. from $\omega$
13 1. $\delta e \kappa a v \varphi \hat{y}$


'Taurus: Decan I brings $131 / 3$ cubits. Decan 2 brings ... cubits. Decan 3 brings 9 cubits. Gemini: Decan I brings $13^{1 / 3}$ cubits. Decan 2 likewise brings ... cubits. Decan 3 brings $12^{2 / 3}$ cubits. $\langle$ Canccr $\rangle$ : Decan I
brings $I 5$ cubits. Decan 2 brings $\ldots$ cubits. Decan 3 brings $14^{1 / 3}$ cubiss. Leo: Decan I brings ... cubits. Decan ${ }_{2}$ brings 14 cubits. Decan 3 brings $13^{2 / 3}$ cubits. Virgo. Decan I brings .... cubits. Dccan 2 brings $13^{1 / 3}$ cubits. Decan 3 brings .... cubits. Libra: Decan I brings $122 / 3$ cubits. Decan 2 brings ... cubits. Decan 3 brings is cubits. Scorpio: Decan I brings $14^{2 / 3}$ cubits. Decan 2 brings ... cubits. Decan 3 brings $13^{2} / 3$ cubits. Sagittarius: Decan 1 brings 14 cubits. Decan 2 brings $11^{1 / 3}$ cubits. Decan 3 brings $14^{1 / 3}$ cubits. Capricorn: Decan brings ... cubits. Decan 2 brings $14^{2 / 3}$ cubits. Decan 3 brings $\ldots$ cubits. Aquarius: Decan I brings $\ldots$ cubits. Decan 2 brings $121 / 3$ cubits. Decan 3 brings $14 \frac{1}{3}$ cubits. Pisccs: Decan 1 brings 13 cubits. Decan 2 brings ... $2 / 3$ cubits. Decan 3 brings 14 cubits ... How one should find ... from the conjunction preceding the rising of How one should ... the first of the month ... solar eclipse in the month of the star Sirius ... the precxistent one.

2 There does not secm to be room for $\Delta \hat{i} v \mu$ ot to be spellcd out.
3 o $\mu \mathrm{ot}$ (uc might suggest that the lost number of cubits for the second decan of Gemini was the same as for the first, $13^{1 / 3}$.

There was certainly not space for the name of the sign at the linc's end.
${ }_{1}$ Apparently marking the end of the section.
2-23 The papyrus is broken just to the left of the first visible lettcrs of these lines, which are vertically aligned with the bcginnings of the preceding and following lincs.

23-25 Apparently a computation of the moon's zodiacal sign on the date of the rising of Sirius. First, one counts the number of days from the preceding conjunction of sun and moon until the rising of Sirius.
 the conjunction takcs place in Epeiph, we simply subtract the day number from 25 . The alternative dates for Sirius' rising apparently depend on where the year falls within the four-year intercalation cycle of the calendar The reason for this is that from year to ycar the ideal moment when the star's elongation from the sun is large enough for it to be scen before sunnise occurs a quarter of a day later each year following a nonintercalary ycar, but then three quarters of a day earlier following an intercalation, whercupon the patter begins again.

At the rising of Sirius the sun will always have the same longitude, roughly at the beginning of Leo Suppose, vcry crudely, that the sun progresses $\mathrm{I}^{\circ}$ per day, and the moon $13^{\circ}$ per day. Then since the longiude of both the sun and the moon at a conjunction $d$ days earlier will be $d$ degrees smaller, the longitude of the Now in O. Bodl. 2176 , line 16 , we are instructed to multiply $d$ by some amount that may have been I2 Laint traces at the beginning of line 17 , not transcribed in the edition, might be $\delta \omega \delta \in[]$. The corresponding step in 4473 line 24 is broken away, but the next line prescribes a division by 30

27 The role of the number 40 in any astronomically meaningful calculation involving conjunctions is bscure, but it is surely not an acciden that O Bodl. 2I76 introduces its instruct involving conjunctions is
 (unintercalated) Egyptian calendar required for the solar longitude on a given date to shift backwards one decan (cf. 4474 line 5 note).
28-30 This seems to promise instructions for a calculation or prediction relating to solar eclipses in the month of Sirius' rising, i,.e. Epeiph.
A. JONES
4474. On the Egyptian Year
${ }_{15}{ }^{2}$ B. $40 / \mathrm{G}(\mathrm{d}) \quad 10.5 \times 8 \mathrm{~cm} \quad$ Late second/early third century
The fragment preserves parts of the top lines of two consecutive columns with a 2.5 cm intercolumnium and a 3 cm upper margin. The hand is a documentary type with a slight backwards lean, somewhat resembling P. Lond. I iro (horoscope for AD 138: Roberts, GLH plate 18a). There are faint traces on the back, possibly offset.

The preserved text in column i, which clearly begins in the middle of a discussion, equates the end of an Egyptian calendar year with the sun's entry into the second decan of Virgo; the Greek spelling of the name of this decan is a new variant, reinforcing the impression given by our other sources that there existed no standard set of transliterations of the Egyptian names. Reference is then made to the annual occurrence of astronomically significant events (solstices and, probably, equinoxes) and religious festivals.

The genre of the text is obscure. In the Egyptian astronomy of the pharaonic period the decans were constellations used for nocturnal time-reckoning ( $O$. Neugebauer and R. Parker, Egyptian Astronomical Texts I 95). In Hellenistic and Roman texts, however, they had become part of the equipment of astrology, equated with equal $10^{\circ}$ segments of the zodiacal circle. They are referred to, either by name or as (e.g.) 'the first decan of Aries', in Greek and Latin astrological handbooks, some of the more elaborate horoscopes, and astral omen texts like 2554. But the present text makes no recognizable allusion to astrological concepts. What it does call to mind is P. Hib. I 27, a calendar apparently drawn up in the Saite nome c. 300 bc that lists the fixed dates of religious festivals and astronomical events (risings and settings of stars, equinoxes and solstices) in the Egyptian months. The decans (oi трıáкоvта каi " $\xi \xi$ ácт $\epsilon \rho \epsilon c$ ) are mentioned in connection with festivals in Thoth, Tybi, and Pachon in P. Petrie III I34, also from the third century BC. The text in 4474 was certainly composed in the Roman period, since
the decan named in line 2 is the one that the sun enters close to the beginning of the year according to the reformed Egyptian calendar.

Col. i





] $\eta \lambda$. [. . .] $\bar{\eta} \eta$ 论vac $\theta a \iota ~ с v \mu-$
]. [

Col. ii
[
[.]e!
10
$o \pi[$
$\nu \eta[$
$\tau \alpha![$
$\tau \circ \subset[$
$\tau 0$ [
2-3 1. $\operatorname{c\nu } \dot{\mu} \pi \lambda \eta \rho \omega \dot{\theta} \hat{\eta} v a$,
(Col. i)
[... it returns(?)] to one of the constellations mentioned above, which is named Ousteuko, so that 36 days are completed, in which occur the greatest solstice and the least and the [equinoxes(?)], in relation to which(?) the annual festivals ...
r-2 The usual Greek term $\delta \epsilon \kappa \alpha v$ óc refers to the divisions of ten degrees on the zodiacal circle with which the decans were equated in astrology. In what seems to be the earliest known reference to them,



The name ovcтevk $\omega$ is marked as non-Greek by the horizontal stroke above the letters. This corresponds to the decan that bore the apparently untranslatable name wessy bkity; in the later tradition it was the second decan of Virgo (i.e. Virgo $10^{\circ}-20^{\circ}$. There was no stable speling in Greek. Hephaestion's ist, as it comes whereas a mediacval epitome of Hephaestion gives the spelling ouvčEBkcu (vol, 2, 146.13). It is odd that

4474's spclling appcars to support the reading that strays further from the Fgyptian natne; perhaps there werc alternate spellings in an earlicr statc of Hephaestion's text. Perhaps closest of all to the Egyptian is the (Ncugebauer and van Hoesen, Greek Horoscopes 30 )
${ }_{2}^{2-3}$ The year begins and ends when the sun reaches Virgo $10^{\circ}$. This is approximately corrcct for Thoth I in the reformed Egyptian calendar (Sept. 29 or 30). The text does not mention the intercalations every four years, without which the solar longitude at the beginning of the year would gradually shift backwards. Nonetheless it is obvious that the work from which it comes must have been composed after the calendar reform, i.e. in the period of Roman rule

3 At the end of the line is a small arc at mid-height, apparently acting as a line-filler.
4 The greatest solse solsticc. I have not found this when the length of daylight is at its maximum, almost certainly mentioned in the lost part of line 5 . The dates are of course not listed in the order that they occur in the Egyptian year.
5 If the restoration is correct, the text appears to say that the annual festivals were tied to the dates of the solstices and equinoxes. Attempts to correlate the two date back to the early Hellcnistic period. P. Hib. 27, from the carly chird century BC, assigns spccific fixed dates in the Egyptian calendar not only to Egyptian
cult festivals, but also to the equinoxes and the summer solstice, and sets out a corresponding pattern for the increase and decrease in the length of daylight through the Egyptian ycar. The Canopus Decree of the gth year of Ptolemy Eucrgetes (OGI 56 ) adduced the gradual retrocession of the festivals relative to the seasons as the reason for introducing an intercalary sixth epagomenal day after cvery four ycars, a reform that was only brought into cffect in the reign of Augustus. Writing later than the middle of the second century BC, Geminus (Isagoge 8.20, Manitius i08) mentions as a misconception of the Greeks the notion that the Egyptian festival of 1sis coincided with the date of the winter solstice 'according to Eudoxus', whereas in his time there was a full month's discrepancy (on the passage and the date of Geminus see Neugcbaucr, Hist. Anceent calculates that 40 years brings about a shortfall of 10 days, i.e. the interval that approximately corresponds to one decan's worth of solar motion

A. JONES

4475. General Astrology

## 8/132(a)

A small fragment preserving the middles of five lines (and a trace of a sixth) from the bottom of a column in a small plain upright hand with some documentary features. The back is blank

The text is meagre and disconnected, but interesting for its juxtaposition of allusions to $\dot{\epsilon} \pi \iota c \eta \mu a c i \alpha u$, equinoxes and zodiacal signs, and the great astronomer of the second
 or omens of two types: correlations of the risings and settings of fixed stars with changes in the local weather as recorded in weather calendars ( $\pi \alpha \rho \alpha \pi \eta^{\prime} \gamma \mu \alpha, \tau \alpha$ ), and characteristics of planetary phenomena and above all of eclipses interpreted as portents of conditions
 for Bithynia in a lost work that was one of Ptolemy's sources for the Phaseis (Opera ed. Heiberg, vol. 2, p. 67). But it is difficult to see how the zodiacal signs and equinoxes can have been pertinent in a discussion of predictions from the appearances and disappearances of individual stars.

Ptolemy is also our best source for the other variety of $\dot{\epsilon} \pi \iota c \eta \mu a c i a c$. They are mentioned several times in the chapters of the Almagest on the prediction of eclipses (ed. Heiberg, vol. I.I, pp. $476,5^{12}, 535^{-537}$ ). The passages reveal that the $\epsilon \pi \iota c \eta \mu a c i ́ a \iota$ were observable or predictable phenomena such as the fraction of the sun's or moon's disk obscured and the directions along the horizon towards which the obscuration appears to 'point'; but nothing is said about the astrological interpretations. The latter are, however, very prominent in Tetrabiblos II, Ptolemy's treatment of 'general' astrology. II 8 (ed. Boll and Boer, pp. 82-84) discusses the kinds of predictions that can be made from the astrological attributes of the zodiacal sign within which the sun or moon is eclipsed, with express mention of the influences of the signs associated with the equinoxes and solstices. The citation of Hipparchus may have something to do with a tradition that Hephaestion ascribes (rightly or wrongly) to him associating zodiacal constellations and their parts with geographical regions (ed. Pingree, vol, I, pp. 4 and 22). In view of the emphasis in modern scholarship on Hipparchus' contributions to mathematical astronomy, it is curious that the two known references to him in papyri (here and in the horoscope LXI 4276 ii 3) are in astrological contexts.
].
]. $a \phi \in \iota \tau 0 \hat{v} a \rho \alpha[$
ётıcŋ] $\mu \alpha c i ́ \alpha c \tau \hat{\omega} \nu \tau o[$
$\tau \hat{\omega}] \nu$ l $с \eta \mu \in \rho \iota \hat{\omega} \nu$ [
5
$\left.{ }^{2}\right] \ll \tau \omega \nu \quad \zeta \omega t \delta i \omega y[$
]v ка日̀̀ каi ${ }^{\circ} I \pi \pi \alpha \rho[\chi \circ \subset$

3 icquep $\omega$ у
A. JONES
4476. On the Qualities of the Zodiacal Signs
${ }_{15}$ 2B.42/C(g) $\quad 10.5 \times 11.5 \mathrm{~cm} \quad$ Late second/carly third century
From the bottom of a codex page, with approximately 1.5 to 2 cm lower margin. All other sides are broken, although the beginnings and ends of some lines are just extant. The side with the vertical fibres, which is the codicological recto, is abraded in the lower right portion. The hand is an informal rounded semi-documentary type.

So far as it is preserved, the text consists of astrological attributes of the zodiacal signs and characteristics of people born under their influence, i.e. with the relevant sign
in the ascendant at the time of birth. Substantially the same lists occur in Vettius Valens' chapter (I 2) on the qualities of the twelve signs. Since the first book of Valens' Anthologiae was written in the r6os or later (Pingree, ed. Teubner, p. vi), our papyrus is unlikely to be an abridgement of it; rather, we here have an independent version of one of Valens' sources.

In Valens, each zodiacal sign is taken up in turn in order of increasing longitude starting with Aries, and part or all of the following information is given: (a) attributes of the sign; (b) attributes of the persons affected, derived from the sign itself as well as from the presence of the benefic planets or the planet that is lord of the sign in effective locations; (c) climatic influences of the sign and its subdivisions; (d) a summary of the stars composing the constellation that corresponds to the sign, and other stars that rise or set along with it; (e) geographical regions subject to the influence of parts of the constellation. The order of these sections varies chaotically from one sign to the next, Thus Aries, Gemini, Leo, and Capricorn follow the order a-e, as also do Aquarius and Pisces but with a second version of $d-e$ at the end. Sections $c-d$ come before $a-b$ for Cancer, while for Taurus they come in the middle of section a. The remaining signs (Libra, Scorpio, and Sagittarius) omit all except a-b. 4476 contains only a-b for the consecutive signs Aries-Taurus (recto) and Gemini-Cancer (verso). It looks as if this text supplied the skeleton which Valens attempted to flesh out with sloppy insertions from disparate sources. Notwithstanding the variants-some of them no doubt due to inaccuracies of the papyrus' version-Valens turns out to have copied his source quite mechanically, reproducing even his predecessor's declaration that he will not continue to spell out the planetary influences for the signs following Gemini (verso lines $10-15$; in Valens the promise is not kept in the case of Leo).

Detailed discussion of the astrological contents of the papyrus is not given here, as being more appropriate to a commentary on the complete version in Valens; the notes and translation in J. F. Bara, Vettius Valens d'Antioche: Anthologies, Livre I, pp. 52-77, must however be used with caution.

## ]. . [

.] тодıтьк[óv, ..].[.]. [. .]ọ![. . . . . . . , ко́с-



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 морєкоі, $\theta \rho a]$ сєі̂с $\tau \hat{\eta} \gamma \nu \omega ́ \mu \eta, \vec{a} \lambda \alpha \zeta[6] \nu \in \subset, \mu[\epsilon \gamma \alpha-$
 $\rho \circ \iota, \dot{a} \pi \epsilon \iota] \lambda \eta \tau \iota \kappa о i ́, \tau \alpha \chi \epsilon ́ \omega \subset \mu \in \tau \alpha[\beta a \lambda \lambda o ́] \mu \epsilon \nu O[\iota . \tau \hat{\nu} \nu$



тєс. Tavि ос, оікос 'A $\varphi \rho[o \delta i]$ т $\eta[$ [с. .].. [




c. 5 ]ov, $\theta \eta \lambda \nu \nu o ́ \mu[\epsilon \nu \circ] \nu, \phi \omega \nu \alpha[c \tau \iota \kappa \delta ́ v$,

















[^1](Aries) ... political, ... midhcaven of the cosmos, and responsible for reputation ... in it and the moon, leprosies ... it is also disjunctive, ccliptic. Those born in it according to the principle of house-rulers will be
illustrious, noteworthy, commanding, righteous, loathers of knavery, free, leaders, bold in thought, boastful, great-souled, unstable, capricious, haughty, abscnt-mindcd, full of threats, swift in changing their minds. When the housc-rulers are favourably situated and aspected by a bencfic planet, they come to be authoritative, cosmos, ... agricue power of lifc and death. Taurus, housc arsuline, ... womanish, vocal anthropomorphic, barren, bicorporat, ... public. Those born (in it) are learned, clerks and practitioners of education, artists, lovers of the arts, administrators, takers-on of responsibilities. They are also interpreters, merchants, arbiters of good and evil, wise, inquisitive, initiates in mysteries. And all the things that the house-rulers ever tend to effect in accordance with their own nature, whether good or bad or less or more, they will effect for each
one of the zodiacal signs according to the effective or ineffective configuration of aspects of the house-ruler, one of the zodiacal signs according to the effective or ineffective configuration of aspects of the house-ruler,
so that we need not appear to be repeating ourselves. Cancer, housc of the moon, feminine, tropical, ascendant of the cosmos, servile, descending, inarticulate, watery, good, changeable, public ...






I5 A space of approximately 3 letters' breadth precedes Tav̂poc. The statement that Taurus is the house of Venus is not in Valens.

$16-17$ Valens continues aftcr cтeféoj with further attributes not present in the papyrus. After the interven-
of foreign matcrial (see the general comment above) Valens resumes the list with tion of foreign matcrial (see the general comment above) Valens resumes the list with кócuov тєрьтоьๆтєкоv, His next descriptions, $\gamma \in \omega \bar{\omega} \delta \varsigma$, , $\chi \omega \rho \iota \kappa \delta \dot{v}$, do not fit the traces at the beginning of 17
$\rightarrow$
${ }^{1-4}$ Although in the descriptions of the other signs $\zeta \omega \delta \delta$ tov is always understood, here Valens inconsistently uscs masculine plural adjectives to agree with $\Delta 6$ iovoo. The list is significantly different in the papyrus, since at lines 3-4.

5 Valens: үод́ццата.
6 After $\phi$ ìdoupucot Valens has $\phi$ wavackol. The line drawn above the beginning of the next word in the papyrus may mark an accidental omission.
 the space in the papyrus.


${ }_{13}{ }^{13}$ Valens: àmoтєฝ́́ćci.

4477. Horoscope in Tabular Form, ad 430

65 6B.32/A(1)a

$$
22.5 \times 30 \mathrm{~cm}
$$

After 430
The great majority of horoscopes on papyrus are terse lists of the sun, moon, planets, and ascendant point of the ecliptic with their locations in the zodiac calculated for the date and time of someone's birth; occasionally the astronomical and astrological
information is expanded into an elaborate prose text (cf. Baccani, Oroscopi greci 39 48). 4477 is very unusual in presenting horoscopic data comparable to that found in the elaborate horoscopes in the form of a table. The only other tabular horoscope that has so far come to light is LXI 4286 (text in A. Jones, Astronomical Papyri from Oxyrhynchus, Mem. Am. Phil. Soc. [in press]), a wretched, largely illegible fragment roughly contemporary with the present text.

The remains of 4477 seem to give the full height of the table, with about I. 5 cm margin at the top and about 0.5 cm margin below the lowermost double ruling. At least three columns have been lost on the left, and at least one on the right. The ruling is in red ink, and the names of heavenly bodies in cols. $i$, iii, $v$, and vii and the text in lines $\mathrm{I}, 9$ and 24 are written in fainter ink than the rest of the text, perhaps being data added to the table by a second hand. Parts of the surface are abraded. The back is blank.

The table is divided horizontally into three sections of eight, seven, and six rows. The top row has been used to inscribe the date and time of the nativity; the name of the individual was perhaps also given in the lost beginning of this line. I do not know the meaning of the text written between the first and second sections and between the the meaning of the text written between the first and second sections and the bottom ruling. In the table proper, each row represents one of the objects, the zodiacal positions of which constitute the horoscope. These were surely named in the lost leftmost column, and probably the second column contained the name of the pertinent zodiacal sign and the longitude in degrees. As in the other elaborate horoscopes, each position is considered as belonging to certain conventional partitions of the zodiacal circle associated by astrological doctrine with one or another of the planets. The preserved columns are concerned with the zodiacal signs themselves considered as planetary depressions ( $\kappa о i \lambda \omega \mu a)$ and members of triplicities ( $\tau \rho i ́ \gamma \omega \nu o \nu$, comprising groups of three equidistant signs), and with the precise locations within the signs as belonging to terms (ó $\rho \iota a$, unequal subdivisions of a sign), decans ( $\pi \rho o ́ c \omega \pi \alpha$, equal $10^{\circ}$ segments of a sign), and single degrees ( $\mu$ ovo $\mu \circ \iota \rho i a$ ) lorded by the planets. These are all concepts familiar from the astrological handbooks, but less frequently encountered in documentary horoscopes (the only examples with all of them are LXI 4277 and 4283, texts in Jones, Astron. Papyri). It is practically certain that lost columns, probably the first pair after the longitudes, contained the planetary house rulers of the zodiacal signs (cf. Neugebauer and van Hoesen, Greek Horoscopes [henceforth GH] 7 Fig. 4), since these are always present in elaborate horoscopes. Moreover, it seems unlikely that the planetary depressions were included without columns also for their
 preserve the eighth to the fifteenth.

Equally unusual is the large number of astronomical and astrological objects under consideration. Unfortunately the loss of the first columns is an obstacle to establishing what they were. We would expect the top section, with seven objects, to deal with the sun, moon, and five planets in the standard Greek order Saturn, Jupiter, Mars, Venus, Mercury ( $G_{1} H_{163-164}$ ); and this hypothesis leads to an astronomically consistent restoration of the horoscope and a dating in agreement with what can be read of line I.

The first four rows of the second section turn out to belong to the four cardines (the ascendant, lower midheaven, setting point, and midheaven). The identities of the remaining nine objects are very uncertain, although there are good reasons for believing that the bottom section was devoted to a series of astrological 'lots' ( $\kappa \lambda \hat{\eta} \rho o t)$.

The restoration of the approximate planetary positions of the horoscope depends on the fact that there existed conventional lists and schemes for the exaltations and depressions, triplicities, terms, and decans with their planetary lords. Astrological handbooks describe several schemes defining the terms and their lords, but only the so-called 'Egyptian' system ( $G H$ I3 Table 7) has so far been found in Greek horoscopes on papyrus, and we may assume that it was employed here too. The triplicities are subject to less extreme variations, but their lords as listed in our horoscope are consistent with the schemes for nocturnal genitures of both Ptolemy and Vettius Valens (GH 12-13). The rules for the other divisions were standard in antiquity: for exaltations and depressions, see $G H_{7}$ Fig. 3, and for the decans and their 'faces', $G H_{\text {II }}$ Table 6. The reconstructed horoscope, justified for each item in the notes, is presented below, together with a recomputation according to Ptolemy's Handy Tables for AD 430, July 7, at 4 A.M. (=Era of Diocletian 146, Epeiph 13/14, about the middle of the eleventh hour of night). This is the only date in late antiquity, compatible with what can be read of line I, that leads to positions consistent with the data in the table.

| line | object | reconstructed | Handy Tables |
| ---: | :--- | :--- | :--- |
| 2 | Sun | Cancer $7^{\circ}-13^{\circ}$ | Cancer $12^{\circ} 55^{\prime}$ |
| 3 | Moon | Cancer | Cancer $29^{\circ} 29^{\prime}$ |
| 4 | Saturn | Capricorn $0^{\circ}-7^{\circ}$ | Capricorn $10^{\circ} 22^{\prime}$ |
| 5 | Jupiter | Sagittarius $0^{\circ}-10^{\circ}$ | Sagittarius $7^{\circ} 4^{\circ} 1^{\prime}$ |
| 6 | Mars | Leo $20^{\circ}-24^{\circ}$ | Leo $22^{\circ} 38^{\prime}$ |
| 7 | Venus | Cancer $7^{\circ}-10^{\circ}$ | Cancer $14^{\circ} 57^{\prime}$ |
| 8 | Mercury | Cancer $10^{\circ}-13^{\circ}$ | Cancer $11^{\circ} 59^{\prime}$ |
| IO | Ascendant | Gemini $26^{\circ}-30^{\circ}$ | Cancer $2^{\circ}$ |
| II | Lower midheaven | Virgo $12^{\circ}-16^{\circ}$ | Virgo $16^{\circ}$ |
| I2 | Setting | Sagittarius $26^{\circ}-30^{\circ}$ | Capricorn $2^{\circ}$ |
| I3 | Midheaven | Pisces $12^{\circ}-16^{\circ}$ | Pisces $16^{\circ}$ |
| I4 | unidentified lot | Cancer $0^{\circ}-7^{\circ}$ |  |
| I5 | unidentified lot | Virgo $20^{\circ}-28^{\circ}$ |  |
| I6 | Lot of Fortune? | Gemini $10^{\circ}-12^{\circ}$ |  |
| 18 | unidentified lot | Gemini $20^{\circ}-24^{\circ}$ |  |
| 19 | Lot of Daimon? | Cancer $7^{\circ}-10^{\circ}$ |  |
| 20 | unidentified lot | Gemini $24^{\circ}-30^{\circ}$ |  |
| 21 | unidentified lot | Gemini $24^{\circ}-30^{\circ}$ |  |
| 22 | unidentified lot | Gemini $24^{\circ}-30^{\circ}$ |  |
| 23 | Lot of Eros? | Cancer $20^{\circ}-26^{\circ}$ |  |

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I The transcript does not represent the position of words in this line in the grid precisely
The first preserved writing, preceding the month and day, ought to be the number of the year. A year according to the Diocletianic Era is usual for horoscopes of the fourth century and after, and the traces seem
to fit 146 , the Diocletianic ycar corresponding to the date deduced above from the planetary positions; there seems, however, to be a letter or symbol following what I take to be a 'stigma'. For a late horoscope, one expects an unqualificd Egyptian calendar date to be according to the civil calendar rather than the old unintercalated calendar preferred in astronomical tables; and this is bornc out by the solar longitude.

2 " $A p[$ [ $\omega$ c for the planctary depression in col. v is faint, but the traces are unambiguous. The object in question, which we hypothesize to be the sun, is therefore in Cancer. Venus' terms in Cancer are from $7^{\circ}-13^{\circ}$, in agreement with the rccomputed longitude. If col. i contained the triplicities for this part of the table (cf lines $5-8$ ), we would expect to read triplicity of Mars, and in col. vii, decan of Mercury
 and decan of the moon.

4 Saturn. Capricorn is the depression of Jupiter, and the terms of Mercury in that sign are $0^{\circ}-7^{\circ}$. The longitudc recomputed from the Handy Tables would fall within the neighbouring terms of Jupiter. The decan of Jupiter would correspond to $0^{\circ}-10^{\circ}$, compatible with the terms. In col. i we expect the moon as the lor of the triplicity.
 Aquarius. Within these signs, the decans Taurus $0^{\circ}-10^{\circ}$, Sagittarius $0^{\circ}-10^{\circ}$, and Aquarius $10^{\circ}-20^{\circ}$ belong to
Mercury. Only Sagittarius $0^{\circ}-10^{\circ}$ overlaps terms lorded by Jupiter ( $0^{\circ}-12^{\circ}$ ) although it is just conceivable that Aquarius $20^{\circ}$, which marks the boundary between both decans and terms, could have been assigned to the preceding decan and the following terms of Jupitcr. Sagittarius belongs to the triplicity of Jupiter, in agreement with col. i.

6 Mars. The traces in col. vii seems to fit $\left.{ }^{N A} \neq \epsilon\right] \omega c$ better than $\left.\Delta t\right]$ óc. The decans belonging to Mars in signs without depressions arc Gemini $10^{\circ}-20^{\circ}$, and Leo $20^{\circ}-30^{\circ}$; the possible decans for Jupiter are the preceding ones in the same two signs. Mcrcury has terms in Gemini $0^{\circ}-6^{\circ}$ and Leo $18^{\circ} \cdots 24^{\circ}$. Col, i, assuming that it gives the lord of the triplicity, confirms Leo as the sign in question
${ }_{7}$ Venus. The sign is again Ciancer, the depression of Mars, in the triplicity of Mars. The terms of Venus are $7^{\circ}-13^{\circ}$, and Venus' decan is $0^{\circ}-10^{\circ}$, so that the planet's longitude should have been in the range $7^{\circ}-10^{\circ}$ recomputation with the Handy Tables givcs a slightly higher longitudc.
resulting range, $10^{\circ}-10^{\circ}$, is in agreement with recomputation. The decan is Mercury's, i.e. $10^{\circ}-20^{\circ}$ assigned a higher longitude than Venus shows that the discrepancies with Ptolemy's theory cannot be explained by a constant difference in the assumed zero point of the ecliptic.

9 I can make no sense of this line. 'The first visible writing might be a koppa. The mention of 'minutes' suggests that a number was given here, perhaps a longitudc.

10-23 The order of columns in the latter part of the table is different from that of lines 2-8, for reasons that might have been clearer if the first columns had not been lost. The triplicity and terms, which occupicd the first and sccond scts of columns in the upper section, are here shifted two columns to the right, while the depressions lose their placc. Col. is poorly preserved for the scond and third sections', but venus seems to exaltations or depressions. Venus' exaltation is in Pisces in the triplicity of Mars its depression, in Virgo, the riplicity of the moon. Hence column i contained the depressions, and we merely have a reordering of the same scries of columns as in the top section.

1o The signs in the triplicity of Mercury that have no depression are Gemini and Aquarius. In Gemini the terms of Saturn are $24^{\circ}-30^{\circ}$; in Aquarius, $25^{\circ}-30^{\circ}$. After the seven heavenly bodies, we expect to find the ascendant of the nativity, and a longitude towards the end of Gemini is perfectly acceptable, allowing for the uncertainties in the precise assumed solar longitude, the time for which the horoscope was computed,
and the tables used to compute the ascensional differences. and the tables used to compute the ascensional differences.

If The sign has been shown above to be Virgo, and the terms of Venus are $7^{\circ}-17^{\circ}$. This fits the lower order for the loci $(G H 7-8)$

12 This ought to be the setting point, diametrically opposite the ascendant, and hence to of Sagittarius. This fits the specificd triplicity and terms (Sagittarius $26^{\circ}-30^{\circ}$ belong to Mars)

13 The midheaven should be diametrically opposite the lower midheaven, about the middle of Piscrs. The terms of Jupiter in Pisces are $12^{\circ}-16^{\circ}$, and Jupiter's decan is $10^{\circ}-20^{\circ}$, so that he longitudes of midheaven Mercury, and a trace of the final upsilon of 'Eppoô may be visible in col. i.
14-23. The last three lines of the middle section and the entire last section of the table present great difficulties in the identification of the objects to which each line belongs. Several other horoscopes list one or more 'lots' ( $\left.\kappa \lambda \hat{\eta} \rho \circ \frac{\circ}{}\right)$, astrologically significant points determined by measuring off an interval from the ascendant point equal to intervals between certain heavenly bodies (GH 8-9); but no othcr horoscope contains so many
lots. In the present horoscope the sum, moon, Venus, and Mercury are all clustered close to the ascendant, lots. In the present horoscope the sun, moon, Venus, and Mercury are all clustered close to the ascendant, to fall close to the ascendant. And in fact all but one of the points in lines $14-23$ fall within the interval Gemini $10^{\circ}$-Cancer $26^{\circ}$.
The lot most often given in horoscopes is the Lot of Fortune, which (according to the rule usually followed for nocturnal genitures) is as far behind the ascendant point as the moon is ahead of the sun. Since the moon in the present instance was about $16^{\circ}$ ahead of the sun, only line 16 could pertain to the Lot of Fortune. The Lot of Daimon ought to be symmetrically situated to the Lot of Fortunc around the ascendant, correct, the ascendant must have been close to Gemini $26^{\circ}$, and the moon must have been computed a littie closer to the sun than according to the Handy Tables. Two other lots, those of Eros and Necessity, are usually twice as far from the ascendant as the Lots of Fortune and Daimon. Line 23 might therefore bc one of these, more likely the Lot of Eros. I have no suggestions for the remaining lines.
${ }^{14}$ Mars (rather than Jupiter) is assured in col. i by the triplicity, so that the sign is Cancer. The terms of Mars $\left(0^{\circ}-7^{\circ}\right)$ and decan of Venus ( $0^{\circ}-10^{\circ}$ ) limit the range to Cancer $0^{\circ}-7^{\circ}$.
${ }^{15}$ Mercury lords a decan in Taurus ( $0^{\circ}-10^{\circ}$ ) and Virgo ( $20^{\circ}-30^{\circ}$ ) among the signs of the moon's iplicity. If the sight trace in col. v is correctly read as sigma, the only possible range is Virgo $20^{\circ}-28^{\circ}$ (terms apiter and Mars).
I 6 The readings
respectively, the longitude ine are all uncertain. If Mercury and Mars arc correctly read in cols. iil and col. v was Jupiter's, the range is further narrowed down to Gemini $1 \mathrm{o}^{\circ}-\mathrm{I} 2^{\circ}$.
${ }^{18}$ The sign can only be Gemini (decan of the sun, $20^{\circ}-30^{\circ}$ ). Taking Mars' terms into account, the range is $20^{\circ}-24^{\circ}$.
${ }^{19}$ Triplicity, decan, and terms narrow the range to Cancer $\eta^{\circ}-10^{\circ}$
20 In Gemini (cf. line 18 ) the terms of Saturn are $24^{\circ}-30^{\circ}$.
23 From the triplicity, decan, and terms, the range is Cancer, $20^{\circ}-26^{\circ}$
${ }^{2} 4$ As in line 9, there seems to have been a number (a longitude?) here. Some text may have broken off below cols. iv- v .

## V. DOCUMENTARY TEXTS

## 4478-4480. Notifigations of Death

The 83 notifications of death known up to 1985 were republished by Loisa Casarico in Il controllo della popolazione nell'Egitto romano. I: Le denunce di morte $=\mathrm{C}$. Pap. Gr. II( r$)$, of which 23 are from the Oxyrhynchite nome. Her nos. 8, 68 and 76 have now been republished as SB XVI 12383, 13040 and 12712 respectively, and no. 29 as SB XVIII 13368 ; in addition five new texts have been published (none from the Oxyrhynchite): P. Prag. I 19, P. Tebt. inv. 2 1016, edited by Urania Molyviati-Toptsi in ZPE 77 (r989) 28I-2, and P. Hamb. inv. 494, P. Heid. inv. G 512 and P. Gen. inv. 46, edited by Ruth Duttenhöfer in $Z P E 79$ (1989) 227-34. Casarico tabulates the phraseology of the documents according to nome and analyses their form in her introduction; she also gives a comprehensive list of previous literature on the subject (see notes 15-21 on pp. 9-10).

The three texts published here bring to 9I the total of death notifications now known. All of them conform in broad terms to the patterns expected in the Oxyrhynchite at the date at which they were written, but each of them has a few points of special interest.

## 4478

72/71(a)
,
$7 \times 21.2 \mathrm{~cm}$
${ }^{15}$ December 74
The papyrus is complete apart from a few holes and some stripping. The back is blank. It contains a notification by Nicias of the death of his father Theon addressed to the scribes of the city

The first hand is a fluent, rounded cursive typical of the period, in which the lines have a marked tendency to slant upwards to the right. The second hand is the same as the second hand in XLIX 3510 (=C. Pap. Gr. II ${ }_{5}$ ), first published, with plate, by Robert Hubner in $Z P E 30$ (1978) 198-200. This is addressed to the same two officials as the present text, but is dated some four years later in $A D 78 / 79$ (not $79 / 80$ as is recorded in the two earlier editions).
$\Delta \iota o \gamma \epsilon ́ v \epsilon \iota$ каì ${ }^{2} A \pi o \lambda[\lambda o] \phi(\alpha ́ v \epsilon \iota)[\gamma \rho] \alpha(\mu \mu a \tau \epsilon \hat{v} \subset \iota)^{\prime} O \xi v \rho v^{\gamma} \gamma \chi(\omega v)$ $\pi о ́ \lambda \epsilon \omega с$
$\pi a \rho \grave{a}$ Nıкíov тô $\Theta \in \in[\omega \nu \circ c] \tau \hat{\omega}$

5 ó с $\quad$ раı $\nu o ́ \mu \in \nu o ́ c ~[\mu \circ v] ~ \pi \alpha \tau \eta ̀ \rho ~$
$\Theta \epsilon ́ \omega \nu$ Nıкíw oc á áoypa-

$\gamma \in \nu o v \theta \epsilon \omega \leftharpoonup$ є́ $\tau \in \lambda \epsilon[\hat{v}] \tau \eta \subset \in \varphi$

${ }^{10}$
$\hat{\alpha} \xi \iota \hat{\omega} \iota \dot{\alpha} \nu a \gamma \rho \alpha ́ \psi \epsilon[c \theta] \alpha \iota$
 $\lambda є v \tau \eta \kappa o ́ c \iota \dot{\omega}[\mathrm{c}]$ €̉ $\pi \grave{\imath} \tau \hat{\omega} \nu$ о́ $\mu$ о́ $\omega \nu$ каì ỏ $\mu \nu v ́ \omega$ Av̉токра́тора Kaícapa Ov̉єстасıavòv $C_{\epsilon} \beta$ асто̀v à $\lambda \eta \theta \hat{\eta}$ єivaı $\tau \grave{a} \pi \rho \sigma \gamma \epsilon-$ $\gamma \rho \alpha \mu \mu \epsilon ́ v \alpha$
 Av̉токра́торос Kaícaрос Ov̉єстасıavô̂ $C_{\epsilon} \beta$ actô̂,
$X o i(\alpha \kappa) \bar{\theta}$.

'To Diogenes and Apollophanes, scribes of the city of the Oxyrhynchi, from Nicias son of Theon, of the people of the city of the Oxyrhynchi.
'My aforementioned father, Theon son of Nicion, registered in the Temgenouthis quarter, died in the past year (?); wherefore I request that he be recorded among the deceased as is the case with similar persons, and I swear by Imperator Caesar Vespasianus Augustus that the above declaration is true.'
'(2nd hand) I, Diogenes, have signed it. Seventh year of Imperator Caesar Vespasianus Augustus, Choiak I9.'

1-2 The same two officials, but with their names in the reverse order, are found in five other texts: SB XII ro788B (AD 62), P. Gen. II 94=SB XIV 11974 (AD 63/4), PSI VIII 87 I (AD 65) and PUG I I2 (c.

 (1978) 199, Strassi, ZPE 88 (1991) 118-9.

Oxyrhynchus see Paul Mertens, Les Services de l'Etat civil, 2-7 and C. Pap. Gr. II 22).
 II 65 and 24 ); cf. also I 766.
6 Nukiuvoc: a rare name, otherwise attested only in P. Tebt. III 87r.5, 107r. 6 and SB IV 745 I. 43 (all Ptolemaic
 have ávaypaфŋŋvau, but P similar variation between the two words in applications to register children: mos see S. L. Wallace, Taxation, 395 n. 10.
 s.V.; LXIV 4441 v 9 n. Other death notifications from this quarter are II 262 , XLI 2957 and P. Merton II
84. H. Rink, Strapen- und Viertelnamen pon Oxyrfynchus, 35, observed that the use of the district name was similar
 Tempel oder größßere offenthiche Bauten，Tevpevoôruc wird also etwoas Almhiches sein＇．If the name Temgcnouthis is a Hellcnisation of $t s$－wm（ $t$ ）－n－ntr，＇the gateway（or wall）of the god＇（sec A．Erman and H．Grapow，Woriterbuch der Ägyptischen Sprache I 307，vemt 2），Rink＇s theory would be corroborated．
$9\left[\begin{array}{c}{[ँ \tau \epsilon]!\text { spacing favours this as against }[\mu \eta \eta] \text { ］，whichever is correct，it is surprising that the relevant }}\end{array}\right.$ month or year was not specified．The only parallel in such notifications is VII $\mathbf{1 0 3 0 =}$ C．Pap．Gr．II 71，
 also possible）．

9－10 סtò àktout see the note to 44798 ff
 ${ }_{12-13} \dot{\omega}[c] \dot{k} \pi i \tau \hat{\tau} \nu \dot{\delta} \mu \sigma(\omega \nu v:$ again，a very ghehite in exactly this form． the Oxyrhynchite：XLIX 3510 I 7 ．

D．MONTSERRAT

## 4479

44 5B．62／E（T－2）a
$6.1 \times 27.2 \mathrm{~cm}$
29 January 179
Amois alias Dionysius reports the death of his slave，who had died some time previously．The notification is unusual in that it lacks an address，but otherwise keeps reasonably close to the standard Oxyrhynchite form．The back is blank．
$\pi \alpha \rho \alpha ̀ ~ ' A \mu o ́ \iota \tau о с ~ \tau о \hat{\imath}$ каi $4[\iota-]$
vucíou $\Delta$ เoүévovc $\mu \eta \tau \rho[$ òc］
＇Icapov̂тoc à $\pi^{\prime}$＇O $\bar{v} \nu \rho \dot{\gamma} \gamma \chi \omega \nu \pi o ́ \lambda(\epsilon \omega c)$ ．
ó סov̂خóc $\mu$ ov Ev̉тúqךc ó kai

voc ＇$^{\prime} \pi^{\prime}$ ả $\mu \phi o ́ \delta o v ~ \Pi \lambda a r[\epsilon i ́ a c] ~$
є̇ $\tau \epsilon \lambda \epsilon \dot{\tau} \tau \eta \subset \in \nu$ ยै $\tau \iota \pi \alpha \dot{\alpha} \lambda[\alpha \iota]$
$\delta \iota o ̀ ~ \epsilon ้ \pi \iota \delta i \delta \omega \mu \iota \tau o ̀ ~[u ̀] \pi o ̣-$
$\mu \nu \eta \mu \alpha \dot{\alpha} \xi \iota \omega \nu \dot{\alpha} \nu[\alpha-]$

$\tau \hat{\omega} \nu \dot{\delta} \mu \dot{\omega} \omega \nu \tau \alpha \dot{\xi} \iota\langle\nu\rangle \dot{\omega}[c]$ ка－
Өभ́к८ каi ỏ ouvv́ $\omega$ т ̀े $\nu$
т̂̂v Aüтократо́р $\omega \nu$

${ }_{5}{ }_{5}$ Àт $\omega \nu$ lvov каi Aоvкíov
Àjpŋ入íov Kouнóסov
$C_{\epsilon} \beta a<\tau \hat{\omega} \nu \tau \dot{\chi} \chi \eta \nu \mu \dot{\eta}$

Kaı［c］ápшv Máркоv Av̉pך入íov
${ }_{20}$ À Avтんvívov каi Aovкíov Aủp $\lambda \hat{c}[$ ov $]$
Kouнódọ $C_{\epsilon} \beta$ аст $\hat{\omega} \nu$
${ }^{2} А \rho \mu[\epsilon] \nu \iota \alpha \kappa \hat{\omega} \nu$ M $^{\prime} \delta \iota \kappa \hat{\omega} \nu$
$[\Pi] \alpha \rho \theta[\iota \kappa] \hat{\omega} \nu$ Гє $\mu \alpha \nu \iota \kappa \hat{\omega} \nu$
［Парнатіки̂ข Мєүістшv，

є́ $\pi \lesssim \delta \subset \in ́ \delta \omega \kappa \alpha .\left(\mathrm{m}^{2}\right) ~ П \tau о \lambda()$

qọ̀ ${ }^{\text {kcov．}}$
Space of 8 cm
Traces of one line


From Amois alias Dionysius son of Diogenes，mother Isarous，from the city of the Oxyrhynchi．
${ }^{\prime}$ My slave Eutyches alias Psiathas，adult，registered in the Square quarter，died some time ago；wherefore I present the notification asking that he be registered in the list of those of a similar category as is fitting，and I swear by the genius of the Imperatores Caesare Marcus Aurelius Antoninus and Lucius Aurelius Commodus Augusti not to have lied．

Year 19 of Imperatores Caesares Marcus Aurelius Antoninus and Lucius Aurelius Commodus Augusti Armeniaci Medici Parthici Germanici Sarmatici Maximi，Mecheir 4．I，Amois alias Dionysius，have presented（the notification）．＇
（2nd hand）＇I，Ptolemaeus（？）alias ．．．，have got the duplicate of this．
（3rd hand？）＇．．．．．．＇．
 death notices certainly lack an address：BGU XI 2021 ，LII 3689 and SPP XX 36 （ $=$ C．Pap．Gr．II 73,74 bis a copy made in the office of the official to whom it was addressed．At Oxyrhynchus in the second century
 person making the notification is in the same hand as the actual notification（similarly 3689 ）．
4 Other death notices concerning slaves are II 262，VII 1030，XXXI 2564，XLI 2957，XI，IX 3510 BGU III 773 ，P．Stras．VI 528 and SPP XX 36 （ $=$ C．Pap．Gr．II $9,7 \mathrm{I}, 44, \mathrm{I} 7, \mathrm{I}_{5}, \mathrm{r} 9,50$ and 77 respectively）． $5 \Psi_{\text {tafac：the name is rare．Namenbuch has only two references and in texts published subscquently }}$ has occurred only in SB VI has occurred only in SB VI 9370．iii． 22.
 Other words used at this point describe cither the deccased＇s trade or his age，usually a $\phi \phi \hat{\eta} \lambda \epsilon \xi$ or $\dot{v} \pi \epsilon \rho \in \tau \dot{\eta} c$ ．A a comparable place，we can confidently cxpand $\tau \in \overline{\text { en }}$（ （ooc）herc In SB XVIII 12244 ． 6 and 21 （a Hawara papyrus first published by J．G．Milne in Archiv 5，395－6）$\tau \in \lambda$ is expanded $\tau \in($（ $\epsilon v \tau \dot{\eta}(\alpha \nu \tau \epsilon c)$ ，on Wilcken＇ suggestion．Casarico has suggested $\tau \varepsilon($（ôv $\tau \epsilon$ ）as an alternative（C．Pap．Gr．II，p． 18 n .40 ），and the present text suggests $\tau \epsilon \lambda($（tiot）as another posssbilit


 of the second century，but thereafter it is used in almost all notifications．The closest parallel for the wording in the present text（to line 18）is P．Mert．II 84 （＝C．Pap．Gr．II 66）of AD 201 ，



$18\langle\hat{c}\rangle\left\langle\in \in \hat{c} \theta a \alpha\right.$ ：the initial cpsilon is not infrequently omitted in this infinitive（e．g．XXXVI $2761{ }_{13}$ ）；se Gignac，Grammar I，319－20．In the present text，however，it is not impossible that the epsilon was written a of line $1 \%$ ．
A A large proportion of notifications are submitted in Mecheir and it has therefore been deduced that py the end of the first six for the second half of the Egyptian year for those whose decease had been reported by the end of the first six months：see C．Pap．Gr．II，p． 17 ．

 where the imperial oath is also omitted；see the introduction to $\mathbf{4 4 8 0}$ ． 488 ，from the early fourth century

examples of the official receiving the notification recording his name and cecqueicumal at the foot（e．g 4478 ${ }^{18}$ ），but the only Oxyrhynchite parallel in such texts for the expression Pap．Gr．II 71）of AD 212 ．The expression was，however，quite commonly used in VII $103024-5$（ $=$ C． Arsinoite nome．When it does occur in texts from Oxyrhynchus these are nearly always leases and from the only rarely in official documents，e．g．XXXI 2567 35－6．It secms fairly clear that the official in $\mathbf{4 4 7 9} 26 \mathrm{ff}$ had an alias，but what followed $\delta \kappa[$ is very uncertain，For an official giving his name only in this expression without the addition of his office cf．P．Stras．V $306.14-15=$ C．Pap．Gr．II 74 ．

29 This line no doubt contained a docket in a different hand，but nothing is now legible
J．SPOONER

## 4480

8 2B．69／A（e）
$11.8 \times 25.6 \mathrm{~cm}$
26 February 311
In this document Aurelia Eirene informs the systates of the death of her husband Isidorus．Of the 91 death notifications known to date this is only the third from the late third／early fourth century．The other two are XLIII 3141 of 299／300 and XII 1551 of 304 （＝C．Pap．Gr．II 8I－82）；all three are from Oxyrhynchus and addressed to the systates． 4480 has a number of interesting features discussed in the notes．In addition it is noteworthy that the declarant acts without a кv́pooc and that the notification lacks an oath．It is not unusual for the declarant to be a woman（this is the case in seven out of 26 Oxyrhynchite examples），but elsewhere only in LII 3689 and XLIII 3141 （＝C． Pap．Gr．74bis and 81）do the women make no reference to a кúptoc（cf．3689，intro．）． The omission of an oath is common in death notifications from the Arsinoite，but in other notifications from the Oxyrhynchite which are complete at the relevant point the declarant always swears an oath；of the two from the late third／early fourth century in particular， $\mathbf{3 1 4 1}$ includes an oath and 1551 is unclear．

The main hand is a distinctive angular cursive．The back is blank．There is a remarkable three－layer kollesis at the right－hand edge which overlaps right over left，i．e． the opposite way to what would have been expected．

## $\dot{v} \pi \alpha \tau \epsilon i ́ a c ̧ \tau \hat{\omega} \nu \delta \epsilon \subset \pi о \tau \hat{\omega} \nu \dot{\eta} \mu \hat{\omega} \nu$ Гaגєрiov


Ov̉a入єрíov Ma૬̧uívov $C_{\epsilon} \beta a c \tau o v$ тò $\beta \mathrm{S} / /$ ．

5 （m．I）
${ }^{10}$
${ }^{15}$

20
（m．4）

 $\pi o ́ \lambda \epsilon \omega c$
$\pi a \rho a ̀ ~ A u ̉ \rho \eta \lambda i ́ a c ~ E i p \eta i v \eta c ~ A \mu \mu \omega \nu i ́ o v ~ a ̉ \pi o ̀ ~ \tau \eta ̂ c ~$ $\alpha v ̉ \tau \eta ̂ c ~ \pi o ́ \lambda \epsilon \epsilon \omega c . ~ o ̊ ~ \eta ̀ \mu \epsilon ́ \tau \epsilon \rho о с ~ a ̉ \nu \eta ̀ \rho ~ ' I c i ́ \delta \omega \rho о с ~$

 रócou cue ，єcıc тòv ßiov $\mu \epsilon \tau \eta \dot{\eta} \lambda \lambda a \xi \in \epsilon \nu$

 ßıß入ícv тои є̇тькєфа入íov тádє тà $\beta \iota \beta \lambda i ́ a$
 $\mu \eta ́ c a c \theta a<$ ．


 үра́ $\mu \mu \alpha \tau \alpha \mu \eta ̀ ~ i ̂$ víŋс．
é̀ $\lambda \lambda a ́ c \omega c ı c$


＇In the consulship of our masters Galerius Valerius Maximianus Augustus VIII and Galerius Valerius Maximinus Augustus II．
＇To Aurelius（2nd hand）Besammon son of Chaeremon，（rst hand）systates of the illustrious and most illustrious city of the Oxyrhynchites，from Aurelia Eirene，daughter of Ammonius，from the same city
＇My husband，Isidorus son of Hierax，assistant by trade，while in the most illustrious Alexandria ．．．disease ．．．departed this life；and for the purpose of his name being removed from the poll－tax records returned by you I present this notification so that you cannot allege ignorance．
＇In the aforesaid consulship，Phamenoth 2 （？）．＇
(3rd hand) 'I, Aurelia Eirene, presented (the notification). I, Aurelius Eudaemon son of Dius, wrote on her behalf since she does not know letters.
(4th hand) 'Application for removal (from the poll-tax list) of Isidorus son of Hierax, assistant porridge-seller (?).'
 systates of this name was previously known. He is perhaps to be identified with the Aurelius Besammon attested in XL 2894 of AD 270 , even though that text is somc 40 ycars carlicr. Bcsammon there was a $\chi$ є $p$ отov $\eta \tau \eta$ 衣 who, along with others, was acting on bchalf of the phylarch (see line 37 n.), and the systates
replaced the phylarch at Oxyrhynchus in the 280 . The original writer did not know the name to insert but was sure that its bearer would be an Aurelius; on this feature in other documents see James G, Keenan, $Z P E$ 53 (1983) 245-50.
6 It is not clear whether the writer left the rest of this line blank for the name of the amphodon to be inserted (as occurs in XLIII 3141 4); in XII 1551 and several other documents the systates is described simply as systates of the city.

8 A remarkable use of the 'royal we', for which there is a parallel in the contemporary XVII 2133 I9.
 AD as an assistant to the tax-collectors, the word had a much wider usc than this.
 clumsy, corrected or corrupt. cucxe $\theta$ eic intended? For the expression compare P. Herm. 19. II, каi vócu

 meaning of vococ in the papyri of. G. Casanova, Aegyptus 64 ( 1984 ) r63-201, esp. 168-70. There is no other LV 3816 introd.
II Tòv $\beta$ Kov $\mu \epsilon \tau \dot{\eta} \lambda \lambda a \xi \in \sum^{\text {: }}$ the same expression is found in the other two late third/carly fourth century death notifications, XII 1551 13 and XLIII 3141 r2. It may well occur also in IV $\mathbf{8 2 6}=$ C. Pap. Gr. II I of the reign of Augusus, but is not found in any other such notifications.



 a list of $\mathrm{AD} 72 / 3$ names no longer liable for poll-tax are described as $\eta \lambda$ дaccoutévouv (SPP IV, p. 72, 1. 497). On the moaning of $\dot{e} \lambda \dot{a}$ cccupa in connection with taxes see S. L. Wallace, Taxation, 107,203 and 407 n. 17 .
 submissions by the official in connection with death notifications. Elsewhere the word used is кaraxapí\} ${ }^{2}$;

 (=C. Pap. Gr. II 39).

 imoturicacecf; cf. also VIII 1119 II and P. Sakaon 37.5.
 above), which makes it clear that it is to be understood as a description of a document relating to the deletion of a name from an official record. The word may also appear in L $3588{ }_{17}$ (so the editor), but there the abbreviation $\bar{\epsilon} \lambda \mathrm{A} a c \mathrm{C}($ ) may be of a participial form of the verb.
$22 \chi$ ( $\rho$ ccioo $)$ : a common form of the abbreviation, on which cf. A. Blanchard, Sigles et abreviations dans les papyrus, 6 , and CPR VIII 51.2 n .
 On $\dot{\text { arinpo }}$, which is often mentioned in the papyri, see Emanuela Battaglia, 'Artos'. Il lessico della panificazione
nei papiri greci, 103-4, and to her references add now P. Brooklyn 22.4; F. Perpillou-Thomas, Aeg. 72 (1992) 103-rio. It seems to mean a porridge-like mixture used 'come cibo ma anche come linimento in medicina' There are also one or two references to the diminutive $\dot{a} \theta \dot{\eta}$ poov (Battaglia, 104) and to a purveyor of this
 - ac were formed to describe workers in various occupations (he such words in the papyri was first discussed by B. Olsson in Aegrotus 6 (1925) 217-9, who listed over 20 . Olivicr Masson has subsequently identified scveral more words in this category, see $Z$ PE 9 (1972) 97-101, and II (1973) 1 -19 $=$ Onomastica Graeca selecta I (1990) $163-18 \mathrm{I}$.
D. MONTSERRAT
4481. Authenticated Copy of a Petition to the Prefect
$\left.203^{B} .3^{1 / D} / \mathrm{It}\right)$ a

$$
29 \times 18.5 \mathrm{~cm}
$$

II-26 March ${ }^{179}$
This large sheet contains an authenticated copy, or rather two copies, of a petition to the prefect T. Pactumeius Magnus together with his subscriptio. The subscriptio is dated ${ }_{1} 5$ Phamenoth of year $19=1$ March 179 , and the copy was made before the end of the same month (line I4). Lines I-12 contain one copy of the petition; after a space of 3 cm there follows the 'attestation clause' (lines I3-17), in which the petitioner swears to have made an exact copy of the petition and the subscriptio; there then follows a second copy of the petition, now mostly lost. On the back of this lower copy are the remains of the signatures of the witnesses, written at an angle of $90^{\circ}$ to the writing on the front. Thus $\mathbf{4 4 8 1}$ is exactly parallel in format to BGU II 525 + III $970=$ M. Chr. 242 (which also concerns Pactumeius Magnus), XVII 2131, and BGU XI 206I (both from the prefecture of Subatianus Aquila); see also PSI IX $1026=\operatorname{ChLAXXV} 784$, a Latin petition submitted to the legatus Aug. pro praetore of Syria Palaestina. All five texts contain two copies of the petition (for BGU $525+970$ see Wilcken, Archiv 9 (1930) 95), and can thus be classed as 'double documents'. Double documents were used extensively throughout the Empire for Roman legal documents, military diplomata, etc. A large number of the papyri from Dura-Europos and from Judaea are in this format, as are many of the papyri found in Egypt but written elsewhere (e.g. PSI 1026 referred to above). Note in particular P. Yadin 33 and 34, which are fragments of authenticated copies of petitions similar to the text mentioned above. On double documents in general see E. G. Turner, The Terms Recto and Verso, 26 ff ., esp. $37-42$, and N. Lewis in P. Yadin, pp. 6-10, who quotes further bibliography, as does R. Haensch in $Z P E$ Ioo (1994) 500 n. 45; add ChLA III 200, intro. It was Turner who first drew attention to the important fact that many such document are written across the fibres, transversa charta. This is a feature which applies to all the authenticated copies referred to above. Similarly $\mathbf{4 4 8 1}$ is written across the fibres in the form of what Turner calls a 'rotulus'. Two kolleseis are visible.

The reason for the general format is clearly set out by Hunt in the introduction to XVII 2131: it was to enable one copy of the petition to be rolled up and sealed, leaving the other copy exposed for consultation. It was the upper copy $=$ the scriptio interior which was sealed, and the lower copy $=$ the scriptio exterior which was left exposed
and on the back of which the witnesses signed their names. Hunt thought there were six witnesses in 2131 and Wilcken originally thought this true also for BGU 525 (Archio cit.). Later, however, Wilcken pointed out that the number to be expected in view of the Roman practice to be seen in parallel documents was seven: see Archiv II (1935) 129-30. He remarked further that subsequent re-inspection of the original of BGU 525 confirmed that the papyrus could indeed have had seven witnesses, and he therefore suspected that there were really seven witnesses in 2131; unfortunately this cannot now be checked as the original has been lost. There were certainly seven witnesses in PSI 1026, and in our text there is no real doubt that the fragments should be so placed as to record the remains of seven signatures. BGU 206I was claimed by its editor to have remains of eight small seals. Some of the seals are broken, and to judge from a photograph kindly supplied by Dr Günter Poethke, I wonder whether there were only seven different seals in reality. Faint traces remain of at least one seal in our text. The witnesses' signatures, also written across the fibres, are well spaced out with $2-3 \mathrm{~cm}$ between each entry, as is the normal practice; cf., e.g., P. Mich. VII 434, illustrated in Plate IV and ChLA IV 249, and P. Yadin 20, illustrated in Plate 24. Note that in 4481 the signatures start on the back of what was the foot of the document on the front; in a number of other texts, e.g. PSI ro26, they start at a level corresponding to the top of the lower document on the front, and this seems to have been the more usual practice (cf. Yadin, quoted in P. Yadin, p. 10).

Three other papyri contain authenticated copies of petitions to the prefect of Egypt: SB X 10537, XIV I 1980 (a re-edition of PSI XII 1245) and XVI 13059. I 35 as restored by Wilcken, Hermes 55 (1920) 32, may be another example (although the verb of attestation does not appear in the fragment which survives and there is no likelihood of witnesses' signatures as the back has been used for an unrelated text), as may the very fragmentary P. Stras. IV 235 . Since SB 11980 is a quotation within another petition, it naturally only exists in a single copy (but the reference in the attestation clause, line 13, to $\tau o ̀ \pi \rho \circ \gamma \epsilon \gamma \rho \alpha \mu \mu \epsilon \operatorname{\nu } \circ \nu \beta \iota \beta \lambda[\delta \delta \iota \nu$ indicates that the original document did have two copies of the petition). The format of SB ro537 and I 3059 is unclear on this point. Note also SB XIV 11707.11 , where the words $\beta \iota \beta \lambda \iota \delta \in i o v ~ \mu \alpha \rho \tau v \rho о \pi о i \eta \mu a$ undoubtedly refer to an authenticated copy of a petition to the prefect: see G. Foti Talamanca, Ricerche sul Processo nell'Egitto greco-romano, II (1), I73 n. 337, and cf. J. R. Rea, BASP 14 (1977) 22. There are also a few inscriptions of a similar type, recording authenticated copies of rescripts of emperors: see W. Williams, ZPE 22 (1976) 235-40.

On this type of document see the commentary to IGBulg. IV 2236, Wilcken, Hermes 55 (1920) 1-42 and Archiv 9 (1930) 15-23, Ann Hanson, ZPE 55 (1984) 191-9, and R. Haensch, $Z P E$ Ioo (1994) 499-505. On the more general question of propositio libellon rum (especially by emperors) there is an enormous bibliography: in addition to the articles just cited see in particular A. A. Schiller, P. Col. VI, pp. 39-42, d'Ors and Martin, AfP ioo (1979) ini-24, D. Nörr, $Z R G 98$ (1981) $1-46$, W. Williams, $\mathcal{F} R S 64$ (1974) 98-ıor, ZPE 40 (1980) 283-94 and 66 (1986) 181-207, Fergus Millar, The

Emperor in the Roman World, $240^{-52}$, esp. 244-9; all quote further studies, as does Haensch, $Z P E$ roo, 488 , nn. 4 and 5 .

In the introducton to XVII 2131, the first document of this type to be recognised, Hunt remarked 'Its form is especially interesting. The copy to be certified ... was begun at a distance of about 12 cm from the top of the sheet. In this blank space, added in a more cursive hand, is a second copy'. The same is no doubt true of $\mathbf{4 4 8 1}$ (except that the upper copy is not written more cursively): lines 13 ff . were written first and lines $1-12$ added afterwards; there is a space of 3 cm at the top and of 3 cm after line 12. It does, however, differ from 2131 in two respects: (a) 2131 includes two copies of both the petition and the attestation clause; and the same is true of BGU $525+970$ and PSI 1026. BGU 2061 agrees with $\mathbf{4 4 8 1}$ in including only one copy of the attestation clause, in between the two copies of the petition. (b) $\mathbf{2 1 3 1}$ does not include the prefect's subscriptio at the end of the attestation clause, in which it agrees with the other examples; $\mathbf{4 4 8 1}$ is unique in giving the subscriptio at this point (line 17) as well as at the end of the petition.

The upper copy of the petition in $\mathbf{4 4 8 1}$ is mostly preserved, as is the attestation clause; the small amount lost at the right can be gauged from the certain restoration of line 13, cf. line 8 and note. But although the loss is small it is sufficient to prevent us understanding clearly the nature of the petitioner's grievance, and in particular its legal basis, which is considered further in the note to lines 5 ff . I am most grateful to Dr Barbara Anagnostou-Cañas for sending me thorough and detailed comments on the legal position and the general background. The remarks made in the note referred to owe a good deal to points which she has suggested to me, but I must stress that they represent my own views and that she is in no way to be held responsible for them. I am also grateful for their comments to Prof. H.-A. Rupprecht and Dr Daniel Delattre.

This much is clear: the petitioner is complaining about his wife, who has gone off with property to some or all of which he claims she has no right. For a recent study of comparable texts see Ilias Arnaoutoglou, 'Marital disputes in Greco-Roman Egypt', $77 P$ 25 (r995) II-28. Usually it is the wife complaining about her husband. Of petitions from husbands listed by Arnaoutoglou on p. 2 I n. I8 only three or four are comparable to 4481: in II 282, P. Heid. III 237 (=Arnaoutoglou's P. Heid. I 13) and P. Lond. V ${ }^{1} 65$ I the wife is said to have gone off with property to which she was not entitled; in SB XVI 12505 she is alleged to have sold property which belonged to both husband and wife without his permission (P. Princ. II 77 may be similar). Comparable wording to that found in our text is to be seen in PSI V 463 , but there it is the wife complaining about her husband, and in BGU VIII 1774, where sons complain against their mother. Our petitioner is not in fact asking the prefect to take action on this matter, about which he has already petitioned the epistrategus, but merely to ensure that his wife turns up in court when the case comes up for trial.

The other feature of special interest is the prefect's subscriptio. It is noteworthy that the petitioner is referred to the epistrategus although he had asked for instructions to be given to the strategus; cf. on this J. D. Thomas, Roman epistrategos, 124-5. Much more remarkable is the word ávtéypaza with which the subscriptio ends; on this see the note to line 12.

 रvvatкi тıvt Ta c.






















$\qquad$

є]сфрá $\uparrow$ !ca - écфpláyı́ca


$\stackrel{\circ}{\circ}$


4481. AUTHENTICATED COPY OF A PETITION TO THE PREFECT
 points Guido Bastianini, ANRW II 10, I, 581 97, esp. $587-91$, and Atti XVII Congresso, 13354.0 .
 is a certain Ob̉aptápy.

3 The broken letter after $\tau$ tva, could be sigma, suggesting $\tau$ voac with the noun with which it agrces los in the lacuna. But what this might be and how it could construe is not clear. The letter could equally well
 very reluctant to suggest a reading which needs correcting in such a damaged context. For a possible restoration at the end of this line see the note to line 21 .

 where the husband is alleged to have robbed his wife of goods from two different houses.
$\beta, \beta \lambda i a$ no doubt refers to legal deeds. The word occurs in a similar context in BGU VIII 1774.6-8,
,





5 ff . As indicated in the introduction, the words from $\pi 0 \lambda \lambda \hat{\omega}$ रàp $\mu \hat{a} \lambda \lambda o \nu$ to $\dot{\alpha} \pi \epsilon \nu \dot{\gamma} \gamma \kappa a c \theta a u$ are very unclear It seems reasonable to start with the assumption that the petitioner is married to the woman about whom he is complaining; the language in line 2 can hardly be said to prove this, especially as the word yó ooc does no
 use of the article with avopoc). It also seems clear that the items in dispute did not involve cither the $\phi \in \rho \nu \eta$
or the $\pi \alpha \rho \alpha \phi \in \rho v a$; whether they involved all the items referred to in lines $3-4$ is uncertain. We can easily interpret the first sentence of the petition as being inserted to indicate to the prefect that the petitioncr has been a model husband (captatio benevolentiae). But the two sentences following present major problems and there would appear to be at least two totally different ways of interpreting them:
(A) The petitioner is saying that, as the prefect knows full wcill, the items which he has bought in his wife's name do not of course belong to the wife but to the husband. His wire, however, has taken them away, as well as items he bought last year, and is claiming the right to own all of them. The alternative explanation involves supplying negatives in the lacunas in lines 5 and 6 ; and certainly ovk could comfortably fit into the (B) The petitioner is prepared to admit that he does not of coursc have any claim on the items which he bought in his wife's name ('what the woman acquires belongs to her and not to her husband'), but is contrasting this with items bought in the preceding year not in her name (oivk èv óvóua] $\tau<$ aùrरोc). His wife, he says, has gone off taking everything and is laying claim to own it all.
(A) seems to me to suit best the general run of the Greek and to provide at least a plausiblc way of understanding yáp in lines 5 and 6: the first yap introduces what is in effect a parenthesis Now, as you know
 major problem is that there is no evidence, it would seem, postion regarding the ownership of property in Roman Egypt according to Graeco-Egyptian law; on the contrary, if items were bought in the name of the wife, then they belonged to her not to the husband who paid for them (both Dr Anagnostou-Gañas and Prof. Rupprecht stress this point). It is interesting that in two wills we find the husband willing ownership to his wife of property bought 'in her name': XXVII 2474 18-20,


 automatic ownership of property bought 'in her name', especially as the former text is drawn up in accordanc with Roman liaw and he second is very fragmentary.
well what we know of a wife's property rights in Roman Egypt under Gracco-Egyptian law, of Günthe

Häge, Fhegriterrechtiche Verhailtnisse in den griechischen Papyri, 155 160 (cf. also Edgar Kutzncr, Untersuchungen zur Stellung der Frou im römischen Oxymynchos, and, for the Polemaic period, P. W. Pestman, Marriage and Matrimonial Properyy, $143-154$, esp. r 44). But it is hard, to read the surviving Greek in this way: it docs not fit well with
 sentence in which these words appear, and why should he have introduced it with $\gamma$ áp? This last point leads to the principal weakness in explanation (B): if it is right, there is a sharp contrast between the sentence
 Instead of this, the writer uses the particle $\gamma \dot{\alpha} \rho$. Is it possible that stress should be laid on the words yovì év © roo avdoò ourc oúca, and that therc is a contrast between the wife's legal position while she remains in any such contrast to have been clearly marked in the Greek,
These probems are of course compounded by the loss at the end of line 5 and the damage to line 7

 What is beyond question is that maioonotia and the corresponding verb can be used either of begetting children by the man or of bearing children by the woman (cf. $L S F$ ). We do not know whether the subject of
 take explanation (B) and translate 'are admittedly the property of the wife not the husband, even if she has ceased to havc scxual relations with him'. It is not clear, however, whether this is a legitimate way to translate $\pi a \delta \delta o \pi o t i a$ or whether it must refer more explicitly to producing children (a point made to me by Dr Anagnostou-Cañas). If so it is hard to sec how it could fit explanation (A); but it could perhaps suit explanation (B) if the expression could mean 'even if she has failed to produce children'; if that is felt to be an impossible anslation for the vcrb, the expression might perhaps mean 'even if she has passed the years of child-bearing'. In short, neither of the explanations suggested above comes close to explaining away all the difficulties

 of reccipts in R. O. Fink, RMR 76 ( $=$ P. Hamb. 39), instances of $C_{\epsilon} \beta a c \tau \hat{\omega} \nu$ outnumber those of $A \hat{\nu} \tau o \kappa \rho a \tau \dot{\sigma} \rho \omega \nu$ by at least five to onc. To the examples of Aivrokparópuv given in Bureth add now, apart from $R M R 76, \mathrm{P}$. Customs 271, SB XVI 12749 and P. Stras. VI $530=$ C. Pap. Gr. II 57 (P. L. Bat. XXV 37.14 is doubtful).
If we do not restore ouk after the above (see the note to lines 5 ff ), we could have e.g. kab ('also') or Tádev or possibly ${ }^{2} \lambda \lambda a$ (although this is a long way from $\tau v v a$ ).
 werc now separated would fit well with the reference to the period of their cvußiocccic in line 3, a participle of $\grave{a \pi a} \alpha \lambda \dot{\alpha}$ ccc $\omega$ would appear to suit the context. However, none of the possible participles fits the traces surviving before the mu, and there is not room for $\dot{\alpha} \pi^{\prime} \dot{\epsilon} \mu 00$ followed by a participle of $\grave{a} \pi \alpha \lambda \lambda \dot{A}$ ácc $\omega$; nor would it be at all easy to read $\mu \in \varphi[\eta$ before $\pi]$ a $\nu \tau a$. The reading there is much more like $\mu \eta[$, and it may be just
 detached fragment which could well firt in the first lacuna of this passage; if so it would support the reading ä $\pi \in \in \rho$.

Esєфóp[ $\eta c \in$ the same word is used of the husband making off with property of the wife in PSI 463.10 ; cf. also the passage from BGU 1774 cited in the note to linc 4 . In P. Heid. $237.8-9$ the wife is said to have
 of the line, where it be possible; woil could also bc read, however, immediately before the break at the end of the line, where it could very well be pre
8 àmevérкactac: the same verb is used of a wife seeking to appropriate property of the husband in II 282.12



4481. AUTHENTICATED COPX OF A PETITION TO THE PREFECT

167 eppistrategos, 189) occurs also in SB XVI 12749, first published by S. Daris in Aegyptus 63 (r983) 122-8 (datable only to the joint reign of Marcus and Commodus), and P. Col. X 266 (an undated petition to his successor).
In addition he is mentioned in a bilingual ostracon published by S. Donadoni, Cultura delliantico Egitto (ro86),
 proves that Valens was already in office in ycar $17=A D 176 / 7$; no doubt he dirccly succeeded the Acmilius who is attested for 8 March ${ }_{176}$ (P. Fam. Tebt. 4r). If $\kappa \rho a \pi i c \tau \omega$ is correctly supplied in our text, he was almost certainly still in office when the petition was submitted (beforc II March r79), see Thomas, 46 ; but it would be possible to supply $\gamma \in \nu 0 \mu \dot{\mu} \nu \varphi \omega$ instead (cf. Thomas, 39 ), in which case the text proves no more than that Valens was still epistrategus some time in 177/8 (line 6). He had been succeeded by Claudius Xenophon by 27 July 179 (SB XVI 12678).
 iso used of Valens
10-11 We need to supply a feminine noun at the end of line 10. Possibilities include eivooiac (cf. P. Fam. Tcbt. 15.72), eijuevlac (cf. SB XIV I 1980.17), and $\mathfrak{\xi} \xi \mathbf{\xi}$ ovciac (cf. P. Turner 44.15).

 well cnough one of the regular meanings of the midalc of cuvracca (sec LSF II.3). In P. Abinn. 63.23 the
 eupux(e): there is no trace of the final epsilon and the papyrus appears undamaged; but as the chi is not raised we should perhaps read ${ }^{e} \% \tau \cup \chi\langle\epsilon\rangle$.
avvé $\gamma \rho[a]$ ] $\psi$ : this is a remarkable addition to a prefect's subscriptio to which I know of only two possible parallels. (I) The subscriptio quoted in P. Wisc. I 33.24-5 appears to end $\gamma$ ' $\gamma$ ypap $\mu$ al and G. Foti Talamanca,
Ricerche sul Processo II (I), 204 n. 446 , has acutely observed that this might be supposed to correspond to scripsi, which is sometimes found at the end of imperial subscriptiones, but, as she stresses (cf, also Nörr, $Z R G 98,4$ n. Io), the context is broken and the relationship of $\gamma$ ' $\chi \rho a \mu \mu u$-assuming the reading is correct-to what precedes is unclear (and the middle is unexpected). (2) In SB XVI ${ }_{12678.35-7}$ (first published in ZPE 42 (r98x) 8I-8), a subscriptio by Pactumcius Magnus is quoted, which is said to read L $\tau \theta / / M \epsilon c o p[\eta] \gamma, \tau \varphi$
 margin. This second date is most unexpected and I am very grateful to Traianos Gagos for rechecking the original for me. He confirms my suspicions that the supposed ${ }^{*}$ (ouyc in the margin is no more than offset and that instead of $\Theta \omega \theta{ }_{0}{ }^{\kappa}$ we should rcad $\kappa 0 \lambda(\lambda \eta \mu) \kappa \delta$ : the omicron is clearly there and most of the kappa...., line before this is more difficult: Gagos comments that the problem is that there is too much ink at the end of the line which must have dripped slightly below the letters. That in conjunction with the abrasion of the papyrus creates difficulties in reading with certainty the last three letters'. He adds that he believes psi is easier to read than phi and that in his opinion áve'धypaqua is a better reading than àvrevpápy. It is naturally important that $\mathbf{4 4 8 1}$ and $\mathrm{SB}_{12678}$ can now be seen to corroborate one another and that both are subscriptiones by the same prefect in the same year.

As Wilcken, Hermes 55, 28, pointed out, quoting BGU I 19 ( $=$ M. Chr. 85) I 9 and II 1I, àvrvypá申w can be used of replics by the prefect, and thc same is true of aprivpa $\phi \eta$, e.g. I 6757 ; ; but both words arc always used, so far as I have been able to establish, of replies by means of letters, never of subscrptiones (cf. Nörr, (and scripss) was only used at the end of subscribtiones by emberors, see, e.f., Wilcken and Nörr, locc. citt. As there can be no doubt that duretypala is the Greek equivalent of rescripsi, it can now be seen that this is not the case.
 see above) and/or $\pi p \sigma \theta \in c$, but ncither appears in line 17
13-14 For the omission of Capнaл兀кิ̂v from the imperial victory titles Bureth, op. cit. 86-7, cites only P. Amh. II 99.25 (which however depends on a restoration) and PSI XIII ${ }_{1325 \cdot 4-5}$, and I have found no other examples. On the victory titles of Marcus Aurelius and Commodus see P. Kneiss, Die Siegestitulatur der röm. Kaiser (1969), 97-112, and K. P. Johne, Klio 48 ( 1967 ) 177-82. Phamenoth. In BGU 206r the petition was displayed on the ist of Tybi and the copy was made on the 4 th
 i4-I5 4); cf. I 3512.


 BGU 206 I . 18 with Berichtigungsliste VI (but eaveóv is best omitted), and perhaps also 1359 - oo. For the Latin equivalent cf., e.g., W. Chr. $463.5-9=$ FIRA I ${ }^{2} 76$, where a veteran says (of an edict of Domitian) testatus est se descriptum et recognitum fecisse ex tabula aenea, quae est fixa in Caesareo Magno ... in qua scriptum est et id quod infro scriptume est. Although ${ }^{\kappa} \kappa\left[\gamma \epsilon \gamma \rho \alpha \mu \mu \epsilon{ }_{\epsilon}\right]$ vop is a noticeably shorter supplement than that in the preceding line, both I5 to itor[s\%ocluabe
the comparable documents frop ${ }^{2}$. ${ }^{2}$ of the compall documents from Egypt (in SB XVI I 3059.10 it is used of a copy of the complete aflidavit) it exactly fills the lacuna, and as àvare $\mu \phi \theta$ evroc must agree with $\beta \iota \beta \lambda \downarrow \delta \delta$ ov, the supplement seems certain. It

 of the emperors being displayed publicly at Alexandria. In P. Harr. I $67.13-14$ an imperial rescript give

 refer here to sending upriver to the epistrategus, if the prefect issued his subscriptio at Alexandria, or it may íT[ò Пактоuнךiov: the addition of Tirov is not impossible but would make the line n
than the preceding one.
16 After $\pi \rho \circ$ océév [oc le possibilities,
 and we have evidence for imperial constitutiones being publicly displayed in porticoes of a grmand Alexandria (c.g. XLII 30185 and P. Col. V1 123.1-2: see A. Eukaszewicz, Les edifices publics, 180-1). For a


 Souricaproc in P. Enteux. 8.11. Note also a Claudian inscription reported in Josephus, Ant. Iud. 19.287-91 = J. H. Oliver, Greek Constitutions, App. 5, where the emperor gives orders that it is to be inscribed $\begin{gathered}\text { gev } \\ \text { Eq }\end{gathered}$

The rest of this line must have contained the word $\dot{v} \pi \mathbf{r o y p a \phi} \phi \dot{\eta}$ to introduce line I7, but the parallels all
 above), which would seem to be the minimum supplement possible. On the repetition of the subscribtio se the introduction.

19 The supplement is taken from line 2, but it is some 10 letters longer than we should expect.
 suitable, it is crey probable that we should supply at this point the passage from line 4 beginning eैy $\tau \in \chi$ 价ciouc. What precedes looks most like ]avq[ or, less probably, ] $]$ in the gap following. Earlier in the line the tops of letters which survive might be read ]. .ov. [and the slight

 room for $\chi o p \eta \gamma \dot{\eta}]$ cav $\left[\right.$ [oc; cf. P. Heid, 237.15. If this suggestion is on the right lincs, $\beta_{\iota} \beta \lambda i a$ is to be understood as co-ordinate with modda and both are objects of this participle.

26 Cuv. c: Cuvécioc cannot be read.
29 . ..]. $\lambda \omega \omega($ ): $\Pi \tau[0] \lambda \lambda i \omega($ voc) may be just possible. The lacuna after $\epsilon c \phi$ is hardly sufficient to accom-
modate payica and the word was probably abbreviated modate paycca and the word was probably abbreviated.
30 There is a superscript bar over gamma, hence the reading suggested. For the abbreviation of $\hat{\varepsilon} \subset \phi \rho$ áy $\psi c a$
cf. BGU 206I, back, and the preceding note.

The papyrus provides one further puzzle. There is a detached fragment, broken on all sides, which reads:


One expects this to fit part of the lower copy of the petition and there is no difficulty
 impossible to make the remainder of this fragment fit the wording in the preserved part of the petition and it thus appears that the two versions differed somewhat (cf. perhaps the note to line 19). In line 2 of this fragment the first letter is most like iota, followed by $\eta \gamma \epsilon \mu о \nu \epsilon \subset$ or possibly $\eta \gamma \epsilon \mu$ vac.c. Is it possible that a clause such as $\dot{\omega} \subset \pi \epsilon \rho \pi \alpha \dot{\sigma} \nu \tau \epsilon c$ o]
 \% $\tau \iota$ in line 5 of the upper copy, it would approximately suit the spacing and allow us to read cove] rov $\kappa$ [upiov in the first line of the fragment, taking it from line 4 of the upper copy (assuming that it is there correctly restored). But even so there is no obvious way to fit what remains in lines 4 and 5 of the fragment to the later lines of the petition.
J. D. THOMAS

## 4482. Reports of Receipts of requisitioned wheat

## $304 \mathrm{~B} .36 / \mathrm{F}(4)$ <br> $19 \times 34.5 \mathrm{~cm}$ <br> February 182

The setting of these documents is the Busirite nome in the Delta, not Oxyrhynchus.
 the second, report to the strategus of the nome concerning receipts of requisitioned
 item (=col. i) which was once attached preceding these two, which we do not transcribe.

The strategus Pupillius Maximus is new and a welcome addition to the rare attestations for this nome; see G. Bastianini- J. Whitehorne, Strategi and Royal Scribes 58-9. Neither of the other known holders is near enough to have any possible effect on his term of office.

Several minor place names are mentioned, none of them, unsurprisingly, recorded
 Tavєpєiov（iii 52）and $\chi \omega \rho i o \nu N \epsilon \kappa \tau \epsilon \varphi[$（iii 54）．

For пирò́ cuvayopactıкóc see LX 4063 introd．The collection here is made in 22 Commodus（Mecheir），from the produce of 2 I Commodus，i．e．from the most recent harvest，in accordance with the orders of the prefect Veturius Macrinus．The Arabian nome text LX 4064 （cf． 4063 and $\mathbf{4 0 6 5}$ ）likewise attests a levy in 24 Commodus from the produce of ${ }_{23}$ Commodus．Probably we ought not any longer to explain these levies as motivated by a poor（or excessive）Nile flood，with the accompanying prospects of higher grain prices，although the rate of refund（drachmas per artaba）eventually paid to the contributors may to some extent have reflected a discounted version of the current market price．It seems likely that opportunity was taken much more regularly to provi－ sion the army at a discounted price，regardless of agricultural conditions．On the other hand there is insufficient evidence yet to prove that this system was a routine annual one，and indeed the fact that it is so often specified that the levy was made on the prefect＇s orders（as in $\mathbf{4 4 8 2}$ ）may be an argument that the levy was not so routine．

It may be worth while to outline the procedure．The prefect＇s initiation of the levy will have been accompanied or followed by instructions regarding the territorial extent and rate of assessment of the levy，and the agreed rate of refund．The granary officials would send the strategus reports of the grain paid in $(\mathbf{4 4 8 2})$ ．The payer sends a request for refund to the strategus and／or the royal scribe（XLI 2958－60，XLVII 3335，LVII 3910．Those officials order the public bankers to make the refund．The recipient sends receipts for the refund to the public bankers and to the strategus（XLI 2961－8，LX 4056）．The Arabian nome texts LX 4063－5 document further stages involved in the levy：transport to Alexandria of samples，$\delta \in i \gamma \mu a \tau \alpha(\mathbf{4 0 6 4})$ and of the grain itself（4063）．

The back is blank．There are no remains of a text attached to the right of col．iii， but the loss of vertical fibres from its back for I cm or so at the right edge is probably evidence that a following sheet has separated，cf．the vertical fibres from the back of the almost lost col．i that adhere to the left edge of col．ii

## Col．ii）

## ］．．．．．［．］．［．］．［


Bovci（ $\rho$ írov）

$\mu \iota о с$ каi $\mu \epsilon \tau о ́ \chi(\omega v)$ сıто入（ó $\omega \nu) \Psi_{\iota \nu-}$
чфо́ $\mu \mu о v . ~ \grave{\epsilon} \mu \epsilon \tau \rho \eta \quad \theta(\eta<\alpha \nu)$
$\grave{\epsilon} \pi i \quad \tau \hat{\eta} \subset \pi \rho о к є є \mu \epsilon ́ \nu \eta \subset$

Ма́ркоч Aúpך入íov
（m．2）＇Aскえخтıá $\delta \eta с \dot{a} \rho \chi \iota \in \rho[\alpha-]$
тєv́cac．．．．［．．］．


$\tau \hat{\nu}$ сıто入о́ $\boldsymbol{\omega \nu}$ ．
（Col．iii）
（m．3）


## Поvтı $\lambda \lambda(\omega \iota \operatorname{Ma\xi i\mu } \omega \iota$

ст $(\alpha \tau \eta \gamma \hat{\varphi})$ Boucı $\rho \in і$ íтоv

 тô̂ $\mu \epsilon \mu \epsilon \tau \rho \eta \mu(\epsilon ́ v o v) ~ M \epsilon \chi \epsilon i \rho ~ \tau о \hat{v} \kappa \beta$（є̇тоvc）ả $\pi \grave{̀}$ $\gamma \epsilon \nu \eta ́ \mu(\alpha \tau о с) \kappa \alpha$（єँтоис）Ма́ркоv Av̉рך入íov



Maкрívov rồ $\lambda a \mu \pi \rho o \tau \alpha ́ \tau o v ~ \eta \dot{\eta} \gamma \epsilon-$

Mouvatıavo（ $\hat{v}) \hat{v}(\pi \grave{\epsilon} \rho) \tau o \hat{v} .[\quad$ c． 9$]$
$\pi \rho \alpha к$（торіас）A $\theta$ асу．［
òvó $\mu(a \tau o c)$ A A vvw．［．］．．［
［ $\pi$ ］$\rho \alpha \kappa$（торíac）Tavєpєiọ кќ［（ $\mu \eta с)$ ？］


Фаขо̣̂тıс Пєт
（ $\pi v \rho o v \hat{\alpha} \rho \tau \alpha ́ \beta a \imath) \beta$［
．．．．［．］．．．．．．．．．．．${ }^{v}$
ఆañcı H．［．］．．$v$
（ $\pi v \rho o \hat{v} \dot{\alpha} \rho \tau \alpha \dot{\beta} \beta \iota) \beta\left({ }_{\eta}^{\eta} \mu \iota c v ?\right)[$
€．［．］．$\alpha$
（ $\left.\pi v \rho \circ \hat{\imath} \alpha{ }_{\alpha} \rho \tau \alpha \dot{\alpha} \beta \iota\right)$ ．［
（ $\pi v \rho o \hat{v} \alpha \rho \tau \alpha \dot{\beta} \beta \iota)$ §［
Nєх ．Нрак入（）
（ $\pi v \rho \circ \hat{v} \dot{\alpha} \rho \tau \alpha \dot{\alpha} \beta \alpha \iota$ ）［
60
$[\pi] \rho \alpha \kappa[(\tau о р і ́ \alpha c) . .].$. ［
$\dot{v} \pi \grave{\epsilon}[\rho] \pi \rho a \kappa(\tau о \rho i ́ a c) T a v[\epsilon \rho \epsilon i ́ o v ?$
óvó $\mu(a \tau о с)$＇Hpa［
$\dot{v}(\pi \grave{\epsilon} \rho) \pi \rho \alpha \kappa(\tau о \rho i ́ \alpha c)$. ．［
［．．］．．［
$6_{5} \quad \pi \rho \alpha \kappa(\tau о \rho i ́ a c) \Psi \epsilon \in \uparrow \tau \alpha[$
т．［
$\left[\left(\begin{array}{c}\text {（ } \tau \tau O \cup) ?\end{array}\right] \overline{\kappa \beta}[\right.$



（Col．ii 2 ff．）＇To Pupillius Maximus，strategus of the Busirite，from Hesiës son of Pusipsemis and partners，sitologi of Psinyphommu．There were paid at the aforesaid village，from the produce of the 2 Ist year of Marcus Aurelius Commodus Antoninus Augustus，．．．the requisitioned（wheat）ordered by Veturius Macrinus praefectus，vir claris－ simus，to be contributed，in the name of－lius Maximus，through Asclepiades son of Ptolemaeus，two hundred and thirty artabas of wheat，total 230 art．A duplicate was made of this．
＇The 22nd year of Imperator Caesar Marcus Aurelius Commodus Antoninus Augustus Armeniacus Medicus Parthicus Sarmaticus Germanicus Maximus， Mecheir I．$^{\prime}$ ．
（3I ff．m．2）＇I，Asclepiades，former high priest ．．．，have signed．Hesiës，secretary of the ．．．of the sitologi，〈wrote this（？）〉．＇
（Col．iii．m．3）＇Office of the sitologi of Psebta ．．．＇
（m．4？）＇To Pupillius Maximus，strategus of the Busirite，from Ptolemaeus receiver of corn dues of the village of Psebta．List by persons of the（wheat）paid in in Mecheir of the 22nd year，from the produce of the 2ist year of Marcus Aurelius Commodus Antoninus Augustus，on account of the requisitioned（wheat）ordered by Veturius Macrinus praefectus，vir clarissimus，to be compulsorily purchased，〈through？〉 Nemesius alias Munatianus，．．．＇

I Probably a docket similar to that which heads col．iii（line 36），but not one letter can be made out with any certainty．

2 For Pupillius Maximus see the introd．He recurs in iii 38．For the name Pupillius see W．Schulze，Lat． Eigennamen 443 ．

II The end of the line is puzzling，although the ink is substantially preserved．It may be possible to
 picture is further complicated because the same expression may have come in col．iil 49 where cuvayopactккo （iii 45）is no longer adjacent．

14 For Veturius Macrinus，prafectus Aegypti，see G．Bastianini，ZPE $\mathrm{I}_{7}$（ I 975 ）3oo．His name recurs in iii $46-7$ ．Both instances refer back to his ordering the levy，but he is still in office at the date of the documents． This falls within the term of office already known for hecheir 11－18，22 Commodus， was probably submitted in the following month Phamenoth（Feb．－March）．
28 The damaged second figure of the day number could be one of several of the numbers from $\alpha$ to $\eta$ $(\theta$ is excluded），giving a range Mecheir $11-18$ ．Cf．I4 n ．
$3^{1-5}$ The subscription involves two individuals．Assuming a full stop after $\epsilon \in \epsilon \eta \mu \varepsilon \in \omega \mu \mu a, 33$ ，the second
 ubscription is in the same hand．
$36 \Psi \epsilon \kappa \tau a$ could alternatively be read，also in 41 and 65 ．Public Serrices（ $=$ Pap．Flor．XXVIII）39－40．
49 Cf．in ．

56 Obviously a contributor's name with patronymic bcgan this line, but the traces are too damaged cven to be sure where the division came. The contributor's name probably began $\Phi$ - or $\Psi$ -

63 An unexplained trace in the left margin.
65 For the village name cf. 36,41 ; nevertheless, the ductus of $\epsilon$ here is not clear.
$68 \kappa \beta$ is not uncxpected, cf. 22, but the supralincation is surprising.
R. A. COLES
4483. Letter of Elis to Carpus

70/44(a)

$$
9.4 \times 16.2 \mathrm{~cm}
$$

The astrological content of this letter offers a rare, if not unique, instance of a nontechnical document in which data of a kind found in many astronomical texts and tables on papyrus are applied to a practical situation in real life. The text was written along the fibres, in inelegant but regular capitals; for the date, see $7-10 \mathrm{n}$. On the back, faint smudges may indicate the former presence of the address, along the fibres.

## 

$\tau \alpha ́ \tau \mu \pi \lambda \hat{\imath} c \tau \alpha \alpha \alpha i ́ \rho \epsilon \iota \nu$.
$\mu \nu \eta ́ c \theta \eta \tau \iota \pi \epsilon \rho i$ тov̂ हैvтo-
$\lambda_{\iota к о \hat{v}}^{\tau} \llbracket 0 \rrbracket \hat{\omega} \nu$ скоит $\lambda i ́ \omega \nu \tau \hat{\omega} \nu$
$5 \quad \tau \rho \iota \hat{\nu}, \mu \epsilon \gamma \alpha ́ \lambda \omega \varphi \beta^{-}$каі
[.]. [up to 13 ll .] -
cúvßa入є $\tau \hat{\omega}$ фí $\lambda \omega$ cov $\epsilon \in \lambda \dot{\eta}-$

$\tau \alpha \iota \epsilon \grave{\epsilon} \kappa \hat{\imath} \Theta \grave{\omega} \theta \iota \beta$, $\grave{\epsilon} \kappa \hat{\imath}$ दे $c\{c\} \tau \iota \nu \pi \alpha \alpha^{-}$
1о $\quad \lambda \iota \nu$ каi $\tau \hat{\eta} \iota \gamma^{-} \kappa \alpha i{ }^{\text {' }} \iota \delta^{-}$' $\mu \epsilon ́ \chi \rho \iota \stackrel{\Phi}{\omega} \rho(\alpha c) \zeta^{-}$

$\lambda \omega$ cov. $\delta \iota \in v \tau u ́ \chi \epsilon l$.

'Elis to his most esteemed Carpus very many greetings. Don't forget about the order for the three plates, two big ones and (one small one?).

Meet (or: make a contract with) your friend when the Moon is in Sagittarius, at the 4th hour; it arrives there on 12th Thoth; it is there again also on the I 3 th and $14^{\text {th }}$,

4 cкourोi( $\omega v$. Derived from the I.atin soutula, a serving-plate. Cf. S. Daris, Il lessico latino², p. ro4
6 The missing line will have given indications about the third plate.
7 cúvßade. This verb can have various mcanings which would suit our text. Maybe the addressce should mply meet his friend. On the other hand, we find, in the context of oracular questions, the word fluvpadiv used as 'making a deal' (P. G. M. XXX d3).
7-10 Elis almost certainly made use of an astronomical calendar called an efhemeris, of which there are now many examples from throughout the Roman period, see A. Joncs, Astronomical Papyrif from Oxyrhynchus (in the press), vol. $1,40-42$. They always include columns giving the moon's position (zodiacal sign and degrecs) on each day (at sunset), and usually also have a column stating the time when the moon crosscs from one sign to the next. The only usablc astronomical information for establishing a date is that the moon crossed Sagitarius by the 4th hour on Thoth 12 . Fortunately, we also know how the lunar data were computed in all the surviving ephemerides of the first through the fourth centurics, see A. Jones, Centaurus 39 (1097) I.-36. Within the first four centurics AD, only the year 194 gives a position that comes close to fitting the position implied by the letter.
12 The use of $\delta$ וeviv́xet is surprising; in Oxyrhynchite documents the word is principally although not exclusively petitionary. It is however also a convcntional close in horoscopes, cf. e.g. L.XI 4249, 4264, 4266.
A. JONES
P. SCHUBERT
4484. Petition to the Prefect

A $4 . \mathrm{B}_{5} \mathrm{~A} / 5 \quad 8 \times 12.3 \mathrm{~cm} \quad$ April-May 197
The narrow vertical strip that survives from the top of this petition is too meagre to reveal much of the petition's content. Its principal concern may have been that someone was defrauding the government treasury (lines 8,13 ) and a secretary of the collectors of grain taxes was somehow involved ( 4,15 ).

The interest of the fragment is mainly prosopographical. It attests, albeit fragmentarily, the prefect of Egypt Q. Aemilius Saturninus (line 1), for whom see G. Bastianini, ZPE I7 (1975) 304 and ibid. 38 (1980) 85; B. Thomasson, Laterculi Praesidum I 353; P. Bureth, ANRW II 10.I, p. 490; G. Bastianini, ibid. p. $5^{12}$. It may not be our earliest date for him, and is imprecise (month only), but it may antedate P. Mich. VI 423-4 which show that he was in office by 22 May 197 and (in conjunction with P. Mich. 422) had been in office for an unspecified time already. See further in.

The epistrategus of the Heptanomia Calpurnius Concessus (3, and probably i I) was already known as in office by I 96 and into 198 . His presence enables us to identify the ' 5 th year' given in 5 and thereby provide an approximate date for the document, falling within the term already known for him. See J. D. Thomas, The Roman Epistrategos 190 .

A kollesis bisects $\pi$ of $\mathfrak{\epsilon} \pi \alpha \dot{\alpha} \rho \chi \omega \iota$, I. The back is blank


| [ $\pi \alpha \rho \grave{\alpha}$ |  |
| :---: | :---: |
| [ |  | үран $\alpha \tau \epsilon]$ ̀̀с $\pi \rho \alpha \kappa \tau о ́ \rho \omega \nu$ сוт兀кิ̂v. [

]vсทс (єैтоис) $\epsilon^{\prime \prime}$ IПахळ̀ [



]. $\kappa \in \lambda \in \hat{c} \subset a \iota$ є่к $\tau \hat{\eta}[c ?$
] є́ $\pi \iota \subset \tau \rho a \tau \eta \dot{\gamma} \circ$ [
 $\kappa р а т і с т \omega$ є́ $\pi \iota с \tau \rho \alpha \tau \eta \gamma \omega$
[Ta $\alpha a ̀$
[

15

]. $\pi \epsilon \rho \imath \gamma \rho \alpha \phi \grave{\eta}$ ov $[$
] $\pi о \nu \eta \rho i \alpha c . ~ o ̊ ~ \theta \epsilon v ~[~$
$\gamma] \rho \alpha \mu \mu a \tau \epsilon \grave{c} \subset \pi \rho а к \tau o ́[\rho \omega \nu$ сıтıк $\hat{\nu} \nu$

$$
\text { I a of Alvín[rov rewritten } \quad 3 \text { 1. Kоукє́ccu } \quad 5 \mathrm{~L}
$$

I We cannot be certain that all the prefect's names were given. That $Q$. Aemilius Saturninus is the
efect indicatcd by $]$ ovel is fixed by the reference to Calpurnius Concessus prefect indicated by ]wow is fixed by the reference to Calpurnius Concessus in 3 combined with the date (Pachon, year 5) in 5. Clear tail of first iota in ] ${ }^{\text {cvoc }}$ excludes M. Ulpius Primianus who might otherwise have tered into consideration.
Note the use or liot adscript in the prescript. Its use recurs in 3 , likewise in the dative of an offcials's $\tau \omega c$ o] ucric, referring to $(3,7)$.



${ }_{13}$ Or $\pi \epsilon \rho \iota y \rho a \phi \hat{n}$ ?
R. A. COLES

## 4485-4486. Orders to Arrest

All documents in this category known up to 1986 were listed by Adam BülowJacobsen in ZPE 66 (1986) 95-8. Since then another 16 texts have been published and are listed on pp. 94-5 of the article by Traianos Gagos and P. J. Sijpesteijn in BASP 33 (1996) 77-96. In this article the authors discuss whether the term 'orders to arrest' is appropriate for this type of document (pp. 77-9), and analyse the format in which such
documents appear ( $\mathrm{pp} .80-5$ ). The papyri published here use a formula which was standard in the Oxyrhynchite nome up until c. 250; see Ursula Hagedorn, BASP 16 (r979) $61-74$, especially $66-9$. We can therefore be certain that both papyri belong before the mid third century, at which date the formulas used in such orders changed radically; see the introduction to LXI 4114-4116. For general bibliography on orders to arrest see this introduction and the two articles from BASP cited above.

## 4485

24 3B.75/E(a)
$10.1 \times 7.1 \mathrm{~cm}$
Second century
This small papyrus contains a complete order to arrest, addressed to the archephodus of the village of Ision Tryphonos. Its size is unusual, being more nearly square than the majority of such orders; see the introduction to $\mathbf{4 4 8 6}$. The other feature of note is the addition in line 4 of the subject in connection with which the accusation has been made. The hand is typical of the second century; cf. in particular the $y$-shaped eta in line 4.
$\downarrow \quad$ ả $\rho \chi \in \phi$ ó $\delta \omega \iota$ 'Icíov T Tó $\phi \omega \nu$ oc.
$\pi \epsilon ́ \mu \psi о \nu$ 'E $\rho \mu о \gamma \epsilon ́ \nu \eta$ ? Пav́גov


5
XXXXXXXX

I The end of $\alpha \rho \chi \epsilon \phi 0 \delta \omega \iota$ has been corrected
'To the archephodus of Ision Tryphonos. Send Hermogenes son of Paulus and Horion son of Pausirion, on the petition of Plutarchus concerning public land.'
 are addressed to this official, for whom see F. Oertel, Die Liturgie, 275-7, N. Lewis, Compulsory Public Services2, undated. Two petitions in which the archephodus is mentioned do bear a date, XLIX 3467 of AD 98, and I 69 of AD Igo, but both lack the beginning with the title of the addressee. In both cases, therefore, while there must be a presumption that they relate to the Oxyrhynchite nome, in neither case is this certain. Neverthcless there can be no real doubt that the archephodus existed in Oxyrhynchite villages from at least the beginning of the second century
 made. The closest parallel is VI 969 an accusation to add the subject about which the a Stras. V 309, P. Turner 46 SB XVI

5 On the crosses often added at the end of orders to arrest see $\mathbf{4 1 1 5} 4 \mathrm{n}$.

## A $4 . B_{5} / 5(\mathrm{a})$

5
$26 \times 5 \mathrm{~cm}$
Late second/mid-third century
The most striking feature of this papyrus is its format: the same strip of papyrus preserves two orders to arrest addressed to the archephodi of different villages in the Lower toparchy. There are only two other published examples of two orders on the same papyrus: P. Harr. II I96, which the editor considered to be draft orders since one is incomplete and the other shows many corrections; and P. Cair. Preis. 6, republished by K. A. Worp in $2 P E 84$ (1990) 208-10. In both these examples the two orders are written one underneath the other. In $\mathbf{4 4 8 6}$, on the other hand, they are written alongside one another in two columns. I am inclined to think that $\mathbf{4 4 8 6}$ presents us with two de facto orders. It seems likely that two (or more) such chits were often written together on odd scraps of papyrus lying around in the strategus' office. We may compare XXXI 2574, an order to arrest in which the tails of three final letters from a preceding column are visible and which may well have been a similar order. Thus our text could be a complete example of this administrative practice, where for some reason the two orders were not separated (cf. E. G. Turner, The Terms Recto and Verso, 47, and Gagos and Sijpesteijn, BASP 33, 82-5). Perhaps they were copies, which never left the strategus' office, since IX 1212 suggests that once despatched the orders to arrest remained in the files of the local archephodus rather than being sent back with the prisoner. On the other hand, it may not have been intended to separate the orders at all: the villages mentioned, Tynchinphagon and Tacona, were probably very close to one another, cf. X 1285 I29-30 and XIV 1659 Io9-ro, I 14-15, and it can hardly be accident that the accuser in both orders is the same. It is worth noting that Paneuei and Syron, the two places where the accused in P. Harr. Ig6 were to be arrested, were also probably very near each other (cf. X $128574-5$ and XXIV 2422 8-9).

On the sizes of this class of documents see H. C. Youtie, TAPA 9I (1960) $254=$ Scriptiunculae, I 336, and P. Mich. X, p. 50. If we treat the present papyrus as containing two separate orders of equal width, their size would have fallen within the usual limits.

On the other side, written along the fibres, is a strip with the remains of 21 lines, perhaps of a register; $\kappa$ ] $\omega \mu$ оүра $\mu \mu \tau$ [ occurs. This side was written first and then cut down for reuse for the orders; its hand suggests the early to mid second century. The hand of the orders is clumsy and irregular, and is not likely to be earlier than the end of the second century. As the archephodus is the addressee it cannot be later than the mid third century, see above. The writer's command of Greek leaves much to be desired.

## 1

 $\pi \epsilon ́ \mu \nLeftarrow о \nu$ Kє́фалоv òvๆда́тๆข '̇vтvхóvтос


## ii

$\pi \epsilon ́ \mu \psi о \nu ~ K є \lambda \alpha ́ o v ~ к а i ~ ' ~ E ~ E \rho \mu о \hat{v}$


$2 \pi \pi^{\epsilon} \mu \psi o v: \pi$ corrected from $\psi$

'To the archephodus of Tacona. Send Cephalus the donkey-driver, on the petition of Sarapion the exegetes in office.
'To the archephodus of Tynchinphagon. Send Celaus and Hermes, the son(s?) of Hermes, on the petition of Sarapion the exegetes in office.'

I For the office of archephodus see $\mathbf{4 4 8 5} \mathrm{In}$. On the village of Tacona, in the Lower toparchy, sce LX, p. 194, and $\mathbf{4 0 8 7} 2 \mathrm{n}$. P. ITAO I $4=$ SB XVI 12313 is another order to arrcst addressed to the archephodus
of this village (curiously in the form TaKóvov; elsewhere Takova is always treated as indeclinable, except in some Ptolemaic texts, e.g. BGU VI 1274.4. P. Hib. I 73.14, II .i.s, wherc wc find the expression ev (kஸiun) Tакóvau, i.e. the name is regarded as feminine singular; see Calderini-Daris, Dizionario s.v.).
4 When the accuser is given a description he is very often the bearer of a public office, e.g. comarchs (BGU XI 2080), tax collectors (XXXI 2575, Stud. Pal. XXII 1, P. Oslo II 20, SB XII II Io6), a קoviev ${ }^{4} \dot{c}$ (P. Fay. 37), dckaprotoi (SB XVIII 13896). Some two or three exegetai at Oxyrhynchus with the namc Sarapion are attested at the relevant period. The former exegetai in XLVI 32896 of AD $258 / 9$ and in I 88 9 of AD I79 arc cortainly possibilities. On the other hand chc excgetes in x 126 is probably too early, since Congr. XI 9 , which belongs in or near $\mathrm{AD} 1 \mathrm{I}_{\mathrm{I}} / 2$. The last example is especially interesting, however, as the text refers to a loan made to inhabitants of Tychinphagon.
 the spelling in our text. On the village see Pruneti, I centri abilati, 21 I . For other villages beginning Tuxiv- in the Oxyrhynchite nome see Pruneti, 210 .

6 Kèdoov: no such name is to be found in Preisigke, Namenbuch, or Foraboschi, Onomasticon. Among
 736), and Kè ${ }^{2}$ oc ( O , Mich. I 606).
$6 \rightarrow 7$ It is very odd that the writer should have used what are usually assumed to be two alternative forms for the genitive of the same name, ${ }^{\text {' }} E \rho \mu \hat{\eta} \subset$. It is unclear whether the two men were brothers and the patronymic is to be taken with both names; the absence of a patronymic for the first accused supports this vicw, but in that case one might have expected the writer to have added a $\mu \phi \quad \tau \epsilon \in \rho \omega \nu \nu$ bcforc ${ }^{~} E \rho \mu \hat{\eta} \tau o c$.
D. MONTSERRAT

## 4487. Deglarations of Surety

A $80 / 5 \mathrm{D}$
$8 \times 5.3 \mathrm{~cm}$
Third century
Parts of two entries from a тó $о$ ос сvүко $\lambda \lambda \dot{\eta} с$ снос of guarantees for the presence of third parties. No indication survives here of why their presence is required. Cf. e.g. XLV 3252 and P. Köln III 142, and P. Heid. IV 306-9 where a list of fourth-century examples is provided.

The principal interest of this fragmentary item lies in the addressee, whose name may be reconstructed from the two entries as Aurelius Dionysius alias Heraclides. He held a post in the Prosopite nome, almost certainly that of strategus. This may be the same person as the Aurelius Dionysius (there would be room for the alias, lost to the
right），strategus of the Prosopite，already known from the undated X 1301．If the two texts do attest the same person，the combined Oxyrhynchite evidence may point to his being of Oxyrhynchite origin．For the few other Prosopite strategi known see G．Bastianini－J．Whitehorne，Strategi and Royal Scribes（＝Pap．Flor．XV）ro8；add LX 4056.

The same hand was probably responsible for both entries．Since they come from different declarants，the writer may have been a scribe in the strategus＇bureau；the declarants made a personal appearance at the bureau and the scribe wrote their declara－ tions at their request．
＇The backs are blank．

Col．i
 $[c \tau \rho \alpha \tau \eta \gamma \omega($（？）Прос $\omega \pi \epsilon i \tau \circ]$ ．
［ $\pi \alpha \rho \grave{\alpha} A u ̈ \rho \eta \lambda$ с́ov с．го ］．$\beta \epsilon \omega с к \omega ́-$



|  | c． 14 | ］ér ${ }^{\text {d }}$ avíac |
| :---: | :---: | :---: |
| ［Av̀ $¢ \eta \lambda$－ | c． 17 | ］．．．ace $v$ |
| ［ | c． 30 | ］． |

Col，ii

10
Просатєiт［ov］
$\pi \alpha \rho \grave{\alpha} A u ̉ p \eta \lambda i ́ o v ~ T \iota c o ́ є \iota ~ \in \chi o ̣[\quad$ c． 12

каi aủ $\theta \in \rho \in ́ \tau \omega c$ є́ $\gamma \gamma v a ̂ c \theta a \iota$ ．［ c．I3 ］
${ }_{\epsilon}^{\epsilon} \mu \phi а \nu i a c ~ A \dot{v} \rho \eta \lambda_{c}[-$
c． 20
］
15

$12 \mu \eta \gamma \epsilon \alpha$ ．The reading is clear．It may be a place name or part of a place name．

4488．Declaration of Uninundated Land

This is yet another ảmoypaф̀̀ ảßpóxov（W．Habermann，Pharos 9 （1997）213－83） from the period around $244 / 5$ ，cf．XLII 3046－7 and VI 970．The main interest of the present example is in its supplying a new Oxyrhynchite royal scribe，Aurelius Agathus Daemon，who is also the latest certain royal scribe of that nome：cf．G．Bastianini and J．Whitehorne，Strategi and Royal Scribes（Pap．Flor．XV） 144 ．See further I－2 n，

There is a blank space to the right of $\dot{a} \beta\left(\rho o \chi^{\prime} o v\right)$ in 26 and 2.5 cm blank below． Besides the amount of land in this last parcel listed，we lack the date and the $\epsilon \pi \kappa \delta \epsilon \delta \omega \kappa \alpha-$ clause，and the declaration would seem never to have been finished．

Unlike 970 and $\mathbf{3 0 4 6}-7$ ，docketed on the back with a village name，the back of 4488 is blank（as far as it is preserved）．

$$
\begin{aligned}
& {[\beta a c i] \lambda \iota \kappa \hat{\omega} \gamma \rho(\alpha \mu \mu a \tau \epsilon \hat{\imath}){ }^{\prime} O \xi \dot{\xi} \nu \nu \gamma\left[\chi^{i} \tau \circ v\right]}
\end{aligned}
$$

$$
\begin{align*}
& \text { то仑 } \pi a \tau \rho o ̀ c ~ A u ̉ \rho \eta[\lambda i ́ o v
\end{align*}
$$

vov каi шс хрŋ̣［ $\mu a \tau i \zeta \epsilon \iota$.
$\kappa \alpha \tau \grave{\alpha} \tau \grave{\alpha} \kappa \in \lambda \epsilon v \subset \theta \epsilon \in\left[\nu \tau \alpha\right.$ vimò $\left.A \hat{v}^{-}\right]$
$\rho \eta \lambda i ́ o v{ }^{3} A \nu \tau \omega v$［ivov тồ］

Io кє́ $\psi \in \subset \stackrel{a}{\alpha} \pi \sigma \gamma \rho \alpha \phi\left[\begin{array}{c}\mu \epsilon \epsilon \theta a \\ \eta ้ \nu\end{array}\right]$
єँ $\chi о \mu \epsilon \nu \stackrel{\alpha}{\alpha} \beta \rho \circ \chi\left[\begin{array}{ll}o \nu & \text { c．} 5\end{array}\right]$

Eủ月vк入［白］ovc cùv $[\tau \hat{\omega}$ ？c． 6

фрıv $T \epsilon \hat{\omega} \tau \circ \subset \tau \rho[\hat{v}$ c． 6 ］
$\nu \iota o c ~ \dot{\alpha} \pi o ̀ ~(\mu o v a \rho \tau \alpha ́ \beta o v) ~ \dot{\alpha} \beta(\rho o ́ \chi o v)[(\dot{\alpha} \rho o v \rho \hat{\omega} \nu) \mathrm{x} \tau o ̀ ~ \kappa \alpha-]$
$\theta^{\prime} \hat{\eta} \mu \hat{\alpha} c \quad \eta \mu v c \iota \mu \in ́[\rho o c($ ả $\rho o v ́ \rho \alpha c) \mathrm{x}]$

АААскдата́рьоv．к入．［ с． 7 ］
（ $\mu o v \alpha \rho \tau \alpha ́ \beta o v)$ ả $\pi \grave{o}(\hat{\alpha} \rho o v \rho \hat{\omega} \nu)$ ८ $\tau o ̀ ̀ ~ \kappa\left[\alpha \theta^{\prime} \hat{\eta} \mu \hat{\alpha} c(?)\right]$




##  <br> c. 4$]$

vıov ( $\mu$ ova $\rho \tau \alpha ́ \beta o v) ~ \dot{\alpha} \beta(\rho o ́ \chi o v) \quad$ (vac.) [

'To Aurelius Agathus Daemon, royal scribe of the Oxyrhynchite, from Aurelii [...] and Eleusinius [...] father Aurelius [...] and however he is styled. In accordance with the orders of Aurelius Antoninus, vir egregius, (procurator) in charge of surveys, we register (the land?) which we have, uninundated...
(I3 ff.) '... from the (lot of) Euthycles with the lot of $x$ and Nicon, registered in the name of (?)Onnophris son of Teos grandson of -nis, out of $x$ arouras of uninundated one-artaba land, our half share, $x$ arouras; and registered in the name of Apollonia alias(?) Asclatarion ... one-artaba land, from 10 arouras, our two-thirds share, uninundated, $62 / 3$ arouras; and from the same lot, registered in the name of Neph- ... oneartaba land, uninundated, 12 arouras, and ... registered in the name of the heirs of Isidorus son of -nius, one-artaba land, uninundated, ...'
I.-a For the royal scribe cf. introd. He is also all but the latest known royal scribe from any nome; only Aurelius Achilles may be later, royal scribe of the Heraclides division of the Arsinoite nome in the same regnal year $(244 / 5)$ to the vicinity of which 4488 is assigned. See Bastianini-Whitehorne, op. cit. I26. In this
assessment I ignore royal scribes for whom only a broad dating to the third century is offered The suggestion in XLIII 3116 in . of a royal scribe acting strategus in $275 / 6$ should probably be abandoned, see J. D. Thomas, ZPE 19 ( 1975 ) 119 footnote 4.1.
Pflaum, Les carrières Anoc. équestres III 1084 , add XLII 3046 ( 3 (

$10-11$ For ${ }^{2} \downarrow$ "x $\chi 0 \mu \in \nu$ of. XLII 30474.
$12-13$ The text as so far restored lacks
location, cf. e.g. $\mathbf{3 0 4 7} 4$. If these details were supplied in this tama properties were unwatered and a village displaced by comparison with 3047, but it would be hard to incorporate eithcr or theth at text, they would be 14 The $\kappa \lambda \hat{\eta} \rho o c$ of Euthycles is to be added to the list of P. Pruneti, Aeg. 55 ( 1975 ) 178 .
 seems possible. Cf, is n
${ }^{15}$ A $\kappa \lambda$ f̂poc of Nicon was already known, see P. Pruneti, Aeg. 55 (1975) 192 , although not quite in this
form. Cf. It-I5 n. form. Cf. I4-15 n.

For $\epsilon$ cic cf, 19, 23, 25. For its significance sec $3047{ }_{5} \mathrm{n}$
Tenants in Roman Egrypt For the category of one-artaba land see $\mathbf{3 0 4 7}$ ir n.; J. Rowlandson,
Landowners and
R. A. COLLES
4489. Application to Register a Child
18.2B.7 $/$ /C(1-2)a

$$
15 \times 19 \mathrm{~cm}
$$

5 August 297
Aurelia Helene, widow of Aurelius Silvanus, applies to the systates of Oxyrhynch , for permission to register her son Aurelius Ammon, a $\delta \omega \delta \epsilon \kappa \alpha \dot{\delta} \rho \alpha \not \mu \circ$ of the gymnasial
class, aged I3 years. Documents of this kind from Oxyrhynchus were studied in detail by Paul Mertens, Les Services de l'État Civil (r958), 48-65; for a more recent examination see the introduction and notes to P. Ups. Frid 6, where a list of all then known examples is given. Add now LIV 3754 and P. Col. VIII 23 I.

It is noteworthy that the application is submitted by a woman acting alone in virtue of the ius liberorum. Women have only appeared occasionally in similar documents from Oxyrhynchus, and often because they are the owners of the property where the child was registered, as in III 479, X 1267 and XXXVIII 2858. In the last example the father and mother join in the registration with the female owner. Father and mother jointly register a son in P. Col. VIII 23I. In PSI XII 1257 the mother registers her son jointly with the owner of the property, who may have been the boy's step-father; in P. Ups. Frid 6 registration is by the father and his divorced wife; and in LIV 3754 the grandmother acts alone in registering her grandson, apparently because his father is away on active service. Gf. Edgar Kutzner, Untersuchungen zur Stellung der Frau im römischen Oxyrhynchos, 110.

A repair patch of vertical fibres runs down the centre of the front of the sheet. There is a kollesis almost at line-end. The back is blank.


















Kaıcáp $\omega \nu, M \in с о \rho \eta ̀ ~ ‘ \beta$ '. ［єívvíac үрá $\mu \mu a \tau a$ ．］
＇Under the consuls our lords Imperator Maximianus Augustus V and Maximianus the most noble Caesar II．
＂To Aurelius Horion son of Theon systates of the illustrious and most illustrious city of the Oxyrhynchites for the current I3th and 12th and 5th year from Aurelia Helene daughter of Horion，mother Thermouthion，from the same city，acting without a guardian in virtue of the ius liberorum．
＇I wish to register for the first time in a stathmos of the Poimenike quarter the son born to me by my former and deceased husband Aurelius Silvanus son of Besammon， mother Isis，of the same city，Aurelius Ammon，dodekadrachmos of the gymnasium，being in the current 13th and 12th and 5 th year aged 13 years．Wherefore I present the application asking that he be enrolled，through the register of minors filed by you，in the list of those of his own age，as is his due；and I swear the oath customary to Romans not to have lied．
＇Year I3 and I2 of our lords the Imperatores Diocletianus and Maximianus Augusti and year 5 of our lords Constantius and Maximianus the most noble Caesars， Mesore I2．＇
（2nd hand）＇I，Aurelia Helene，have made application and have sworn the oath as aforesaid．I，Aurelius ．．．，have written on her behalf as she does not know letters．＇
 add to his list LX 4078－4080．Cf．N．Lewis，BASP 29 （1992）127－9．Aurelius Horion was already known as systates for the years 294／5（XLIII 3137）， $297 / 8$（P．Fuad I Univ．13）， 300 （XLV1 3301）and 304 （XII $1551=$
CPapGr II 82）；hc probably also occurs in I 43 verso，III 31，see van Minnen， 283 （but it is doubtful if the Horion of LV 3789.7 is the same man，see the note ad loc．）．In XLVI 3295 of 285 he is among the officials
 Oxyrhynchus carly in Diocletian＇s reign，see Mertens，31，and van Minnen， 275.

5 Auppdac＇Exévoc＇$\Omega \rho$ ficuroc：an Aurelia Helene acting without a kứpoc by virtuc of the ius liberorum occurs in XLI 2989 （3rd cent．；undated）；but an examination of the original suggests that the father＇s name there was not＇$\Omega \rho$ pívoc．
 a list of documents attesting this expression see P．Mich．XV，Appendix II；add now P．Kellis I iga．
7 emi cra $\theta \mu \hat{\mu}:$ the reading，which is due to Revel Coles，is unexpected and the meaning uncertain． ${ }_{c}$ ca $\theta \mu \omega c$ and $c \tau a \theta \mu 00 \times 0$ occur only rarely（less than 20 times）in the Roman period；there is no certain


## 489．APPLICATION TO REGISTER A CHILD

I85
with one or two from the Memphite and the Arsinoite；from Oxyrhynchus we have only III 48218 （rog）for ${ }^{c}$ тa $A \mu$ óc（unless we should interpret the obscure occurrence of cтa $\alpha \mu 00$ in XXXIII 266820 ，of 311 ，as referring to this kind of $c \tau \sigma \theta \mu \mu^{\circ}$ ），and II 387 and XLVI 32715 for $c \tau a \theta \mu 00 \chi$ oo（both rst cent．）．Probably most relevant Hermopolis：P．Amh．II 75，P．Hamb．I 6o，P．Lond．III 935 （p．29）and P．Ryl．II 1o2；cf．crat $\mu 00$ xoc in SB VIII 9869 ．LSJ s．v．I． 4 give the meaning＇quarter（of a town）＇，with reference to $P$ ．Ryl．102，but it is not clear how they arrived at this meaning．The editors merely comment that＇the meaning of the word in this context is obscure（line 8 n ．）．It seems more likely that čatuce means some form of habitation which was smaller than an oikia，which would accord reasonably well with its usual meaning in the Ptolemaic period， If so，one is reminded of expressions in parallel documents such as that in III 4795 ff：$\beta$ קovidouat duaypaфŋ̀vo
 io Aip idov＂A $\mu \mu \nu v a$ ；it is no more than a coincide
lowing Egyptian year，an application is made to register a boy called I Univ．13，which belongs in the M．Aurelius Silvanus．
 XLIII 3137 I 4 n ．（where the present text is referred to）．

21 The papyrus is broken away at the foot．No doubt a docket would have followed below line 22，as in，e．g．，XLIV 3183.

J．L．CALVO MARTÍNEZ

$3^{2} 4^{\mathrm{B}} .4 / \mathrm{A}(7) \mathrm{a}$
$8 \times 24 \mathrm{~cm}$
22 （？？）July 299

The papyrus，written in an ugly sprawling hand，is complete and the back is blank． It belongs to a well－known type，all examples of which known up to 1988 were listed and analysed by John Rea in the introduction to LV 3789．Add now P．Daris inv．249， edited by S．Daris in ZPE 98 （r993）248，which is a receipt for the same year（298／9） as $\mathbf{4 4 9 0}$ ．The present text is unusual in that it has not been signed by the collector （normally the systates）；the only other example of this is XLIII 3142 of 30 I ，which is in general a very close parallel to $\mathbf{4 4 9 0}$ ．It is also unusual in that the amount of 1600 drachmas is not expected at this date：see the note to lines $16-18$ ．

єँтоис $\iota \mathrm{ES}$ каi $\iota \delta \mathrm{S} \tau \hat{\omega} \nu$
$\kappa \nu \rho i ́ \omega \nu \nu \dot{\eta} \mu \hat{\nu}$
$\Delta \iota о к \lambda \eta \tau \iota \alpha \nu$ о̂ каі
Ma乡ıuıavô $C[\epsilon] \beta a[c \tau] \hat{\omega}$
5 каi $\zeta \mathrm{S} \tau \hat{\omega}$ кvрїш
$\dot{\eta} \mu \hat{\omega} \nu$ K $\omega \nu с \tau \alpha \nu \tau i ́ o v$
каì Ma乡ıцıа⿱о仑 $\tau \hat{\omega} \nu$
є́тıфа⿱㇒兀ста́т $\omega \nu$
Kaıcáp $\omega \nu$ ，＇Emi申 $\kappa \eta^{-} . \delta \iota \epsilon^{-}$


ảкодои́ $\theta \omega<$ тоîc кє-
$\lambda \epsilon v \subset \theta(\epsilon \hat{\imath} c \imath)$ ínò $\tau \circ \hat{v} \delta \iota \alpha-$
с $\ddagger \mu$ ога́тоข $\dot{\eta} \gamma \epsilon \mu$ о́vос
${ }_{5}{ }^{\circ}$ 'Hракда́ $\mu \mu \nu \Delta \iota \delta \dot{v} \mu о v$

хь入iac є́ $\xi$ ккосíac
(үívov $\alpha a i)(\delta \rho \alpha \chi \mu a i){ }^{\prime}{ }^{\prime} \chi[$

'Year 15 and 14 of our lords Diocletianus and Maximianus Augusti and 7 of our lords Constantius and Maximianus the most noble Caesars, Epeiph 28th(?). There has been paid on account of poll-tax for the current year in accordance with the orders of the prefect, vir perfectissimus, (in the name of) Heraclammon son of Didymus, donkeydriver, one thousand six hundred drachmas, total 1600 dr .'

${ }_{\text {gff }}$ The construction found here, the passive $\delta$ ievpód $\phi$ followed by the name of the paycr in the nominative and $\delta \rho a x \mu a \dot{\alpha}$ in the accusative, occurs in a number of other Oxyrhynchus papyri, e.g. XLIII 3142.
LV 3789 nn . For the omission of $\pi \mathrm{t}^{\prime} \boldsymbol{\epsilon} \omega \omega \mathrm{scc}$ XXXI 2578, XLIII 3142, PSI IV 302, VII 780 and P. Daris inv. 249 .
I2-13 $\quad \kappa \in \lambda \in v e \theta($ eicic): : the cross-bar of theta is linked to upsilon following and there is no obvious way in
which the abbreviation was marked. which the abbreviation was marked.
 16 buv入daqnc: the tax-payer in XLIII 3142 it is also a donkey-driver.
16-18. The amount of 1600 is very strange, as can be seen by glancing through the list of payments
in LV 3789, introd. The usual payment at this period is 1200 drachmas, and J-M. Carric in Procectings given in LV 3789, introd. The usual payment at this period is 1200 drachmas, and J-M. Carric, in Proceedings
of the XVIth International Congress of Papyrology, 443, has suggested that this was the total sum due in the early receipts (up to 304), rising later to 1600 drachmas (up to 312) and then again to 2400 drachmas. This, however, does not suit either the present text or XLII 3040, which records a rcceipt for I 300 drachmas for $296 / 7$. Even if we leave out of consideration XXXIV 2717 (becausc of the doubt over the figurc in the yeardate in line 2: sec LV, p. 45), we need to take account also of a probable payment of 2000 drachmas for two people in P. Oxy. Hels, 28 for $303 / 4$ (on the reading in line 7 scc LV, p. 46), and of 2000 drachmas and then 400 drachmas apparently for a single person in PSI VII 780 for the years $304 / 5$ and $303 / 4$ respectivcly.
Particularly interesting is the cvidence of LV 3787 . The first line reads Дoukiou cuccútov, after which various
 and as the majority of the amounts in 3787 are for 1200 drachmas, the editor is no doubt right to link the papyrus with this tax. It is therefore noteworthy that as well as the amounts of I200 drachmas we also get amounts of 2000, 2400 and cven, in line 34,2600 drachmas for a single individual, as well as 2000 and 800 for two pcrsons (lines 16 and 18 respectivcly). Unfortunately the text can be given only a firm terminus post
quem of January 297, although there are grounds for wishing to put it not later than 303, perhaps in $301 / 2$ (see the introduction); R. S. Bagnall, CE 66 (r991) 293 6, argues for a dating of 313-20. All this suggests that the picture is rather more complicated than might have at first appeared. It seems we must either suppose that there was no fixed rate but that individuals paid at differing rates; or that the usual payment found up to 304 of 1200 drachmas was no more than an instalment and that the total dax duc was
than
N. LITINAS
4491. Sworn Declaration
$3^{2} 4^{\mathrm{B}} .7 / \mathrm{M}(3-4) \mathrm{a}$ $10 \times 26.2 \mathrm{~cm}$

9 May 307
A copy of XLIV 3192, nearly complete. The two versions are written in seemingly different hands, and neither contains a subscription of the declarant.

Aurelius Timotheus makes a declaration, now extant in two copies which were discarded together and found together as the inventory numbers indicate, to the Oxyrhynchite prytanis in an attempt to avoid a liturgical service in connection with the supply of two donkeys to the magister rei privatae, which the obvouáy $\gamma \omega \nu \in c$ were trying to impose on him.

Since the hands appear to be different and there is no subscription in either version, no more than one of the two versions could have been written by Timotheus himself. In each case the one hand has written everything, except that in 4491 the month and day in the last line seem to have been added by a different writer. The two texts are similar in format, though there is no indication that they have been cut from one sheet There are more phonological and grammatical oddities in 4491 (lines $5,7,8,10,14$, 21,22 ) than in 3192, where they are restricted to a few 1otacisms, and the latter text may perhaps be seen as the official 'fair copy' of the declarant's original submission.

There is a manufacturer's kollesis near the right edge. The back is blank.

```
'̇ \(\pi \grave{\imath} \dot{v} \pi \alpha \dot{\alpha} \tau \omega \nu \tau \hat{\omega} \nu[\kappa] v \rho[i ́ \omega \nu \dot{\eta} \mu \hat{\omega} \nu]\)
```






```
    'O \({ }^{\prime} v \rho v \gamma \chi \iota \tau \hat{\omega} \nu \pi o ́ \lambda \epsilon \omega \subset\)
```



```
    \(\alpha v ̉ \tau \eta ̂ \subset ~ \pi o ́ \lambda \epsilon \omega c . ~ Є \epsilon \pi \epsilon \iota \delta \eta े ~ o u ̉ ~ \delta \epsilon o ́ v \tau o c ~\)
```


 oै $\nu \omega \nu$ ठv́o ả $\pi$ остє $\lambda \lambda о \mu \epsilon ́ v \omega \nu$
 $\tau \hat{\eta} \subset \pi \rho \iota o v a ́ \tau \eta[c] \dot{\omega} \subset \delta \hat{\eta} \theta \in \nu \mu \in \tau \epsilon \rho \chi o ́\{\mu\}-$ $\mu \epsilon \nu o ́ c \mu \alpha \iota \tau \grave{\nu} \nu$ aù $\tau \eta े \nu \tau \epsilon \in \chi \nu \eta \nu$,
катd̀ $\tau \alpha \hat{v} \tau \alpha$ ó $\mu \circ \lambda \sigma \gamma \hat{\omega}$ ó $\mu \nu v ̀ c ~ \tau \eta े \nu \tau \hat{\omega} \nu$
кขрí $\omega \nu \dot{\eta} \mu \hat{\omega} \nu$ Aùтократо́р $\omega \nu$

каi Ma乡ıцivov каi K $K \nu \subset \tau \alpha \nu \tau i v o v$
$\tau \hat{\omega} \nu$ '̀ $\pi \iota \phi \alpha \nu \epsilon c \tau \alpha ́ \tau \omega \nu K \alpha \iota c a ́ p \omega \nu$
$\tau v ́ \chi \eta \nu \tau \eta े \nu$ av̉ $\tau \hat{\nu} \nu \tau \epsilon ́ \chi \nu \eta \nu$
$\mu \eta \tau \epsilon \pi о ́ \pi о v \tau \epsilon \pi \epsilon \pi о \imath \eta \kappa є ́ v \alpha \iota \mu \eta-$


тои́тои кเขסঠ́vఱ.
25
( $̇ \tau \sigma v c) ~ l \epsilon S \gamma S$ aS $\tau \hat{\omega} \nu$ кupí $\omega \nu \dot{\eta} \mu \hat{\omega} \nu$

каi Ma乡ıцivov каi K $\omega \nu с т \alpha \nu \tau i ́ v o v ~$
$\tau \hat{\omega \nu} \dot{\epsilon} \pi \iota \phi \alpha \nu \epsilon \subset \tau \alpha ́ \tau \omega \nu$ Kaıcáp $\omega \nu$.
(m. 2?)

Пахढ้̈ เо-.


'In the consulship of our lords Severus Augustus and Maximinus most noble Caesar.
'To Aurelius Dioscorus also called Helladius, (ex-?) gymnasiarch, councillor, pry tanis-in-office of the glorious and most glorious city of the Oxyrhynchites, Aurelius Timotheus, son of Sarapiades, from the same city. Since improperly the donkey-sellers of the same city have laid claim on me in connection with the supply(?) of two donkeys being sent to the magister rei privatae, vir perfectissimus, on the grounds that I am involved in their trade, I accordingly declare, swearing by the fortune of our lords Imperatores Maximianus and Severus Augusti and Maximinus and Constantinus the most noble Caesars, that I never yet practised their trade nor am I doing so, and if I am convicted in future I will be subject to the divine oath and the risk attached to it.
'Year I5, 3, I of our lords Maximianus and Severus Augusti and Maximinus and Constantinus the most noble Caesars, Pachon 14.'

4 The name of the prytanis, Aurelius Dioscorus alias Helladius, is restored from 3192. He has not been attested elsewhere.
7 Both copies have Caparádovc: for ist decl. names in $-\eta$ c with genitive in -ove as in the 3 rd decl found very sporadically in the papyri) see Gignac, Grammar II p. $\mathrm{E}_{5}$, e.
avi a second arist formation with first aorist ending see Mandilaras, The Verb 317 and Gignac, Grammar II pp. 335-336 (generally) and pp. 340-34I (for the form $\ddagger \lambda \theta a v)$ ).
Io b̀oнáyy $\omega$ vec appear again in LIV 37284 of AD 306 , where they are organized in a guild.
cuctúce $\omega c:$ applied to donkeys, the precise meaning remains unclear, and with it the precise nature of the liturgic service Timotheus is trying to avoid. The word recurs in LX 40745 of the same year, $\tau \hat{\eta}$
 or to travel with them while they are in transit.



 simultaneously, the present declaration in its two copies (4491 and 3192) providing the earliest example o each except for the short form in W.Chr, 429 from the year before.
4492. Petition of a Dike Supervisor

A B3.6/4(c)
$19 \times 14 \mathrm{~cm}$
c. 31 11/2

A former Oxyrhynchite magistrate, now $\chi \omega \mu a \tau \epsilon \pi \epsilon i \kappa \tau \eta c$, reports to the prefect of Egypt regarding the maintenance of dikes in the Cynopolite nome. The text breaks off before allowing us to understand the problem which prompted the report. There is a tantalising reference (8) to the mansio at Tacona (cf. LX 4087-8), puzzling because this is well away from the area that could be called Cynopolite

The prefect Aurelius Ammonius is infrequently attested, but well enough to provide an approximate date for the text. See J. Lallemand, L'administration civile 240.

The administrative position of the Cynopolite nome in the early fourth century is problematical: see especially XLVIII 3423 I2 n , LXIII $43843-4 \mathrm{n}$. The nome existed as a topographical entity in 31 I , and market trading took place there, XIV 1708. The present text indicates that around the same date Cynopolis was (or at least had recently been) functioning as a nome capital of which there were (ex-)magistrates. Rather later in the fourth century XLVIII 3398 II-12 indicates that Cynopolis still had a $\beta$ ounń,
 ing over a judicial hearing involving Oxyrhynchites; close to it in date, XX 2267 mentions a procurator in charge of imperial estates in both nomes. XLVIII 3423 is a fourth-century Oxyrhynchite memorandum which includes a note about exacting tax grain and wine from the Cynopolite/Cynopolis; the note to line 12 of that text lists further evidence for Cynopolite association with or subordination to the Oxyrhynchite. The present text shows the maintenance of dikes in the Cynopolite nome being organized by an Oxyrhynchite official in association with a Cynopolite ex-magistrate.

## DOCUMENTARY TEXTS

Written transversa charta on the recto, in a florid cursive; a kollesis runs across between lines ro--11. The kollesis is of the usual manufacturer's three-layer kind. On the back there are some slight ink traces, some of which may indicate that there may have been a docket.

Fr.b is a small scrap with the first letter or two of each of four lines. The hand is probably the same, but it will not join to the main piece. It may have come from the line beginnings of the text lower down.

## 


$\chi \omega \mu а \tau \epsilon \pi \epsilon і к \tau \eta с$.



## $\mu \epsilon \theta^{\prime}$ خं $\mu \epsilon ́ \rho a c(?)$



$\alpha[i \rho \in \theta \in \hat{\imath} c \iota(?)$



10
[ c. 6 ]. каì ä үі́үvєтацкаi $\delta$.....[...]. . . . . $\alpha$ [. .].. [



[
c. 35
] a . . $\epsilon \in \in \nu \tau![$

Fr. b
$\tau \cdot[$
$\epsilon \pi \iota[$
$\tau \cdot[$
.

(Lines 1-7) 'To Aurelius Ammonius, vir perfectissimus, prefect of Egypt: Aurelius Diogenes alias Eulogius, ex-magistrate of the city of the Oxyrhynchites, dike supervisor ..
'Entrusted with the promotion of the Cynopolite dikes, lord prefect, ... keeping in my heart the fear of the prefecture, I did not cease ... by night and day, together with Lycarion ex-magistrate of the said city of the Cynopolites, until I should ..., and having appointed the water-guards I handed over everything to the persons chosen(?) from the council .. together with the person ordered to promote the work jointly with me. Since, therefore, ...

2 Aurclius Diogenes alias Eulogius has not been recorded previously in The Oxyrhynchus Papyri For the $\chi \omega \mu a \tau \epsilon \pi \epsilon і к \tau \eta$ с see P. J. Sijpesteijn, Aeg. 44 (1964) ${ }^{17}$-rg. Further references are P. Laur. IV 167
 $3 \hat{\eta} \gamma \epsilon \mu \mu[\omega \nu$. Strictly, by this date this term should be used for the praeses only. However, at this date all the territory pertinent to 4492 was still under the control of the prefect, and cf. $\eta y \epsilon \mu \omega v a[\mathrm{c}$ in 4 .
 57-8.
6 For the $\delta \delta \rho \circ \neq \dot{1} \lambda a \kappa \epsilon c$ cf. N. Lewis, Compulsory Pubic Services (Pap. Flor. XXVIII) 48 .
R. A. COLES
4493. Letter to Thaesis

16 $2 \mathrm{~B} .48 / \mathrm{B}(\mathrm{a})$
$13.8 \times 26.2 \mathrm{~cm}$
First half of fourth century
Apart from a hole at the top right, the papyrus is complete. It is written in a large, clear semi-cursive typical of the late third or first half of the fourth century. As the logistes is mentioned (lines I2 and I9), the papyrus is not earlier than the fourth century.

Since we have no idea of the background, the meaning of much of the letter is unclear to us. For the most part it consists of a series of instructions to Thaesis, the writer's mother. One of these instructions is to petition the logistes with a request for the supply of bakers. This may indicate that the writer held a public office and was concerned in the provision of bakers requisitioned by the state; see lines I3-14 n .
 $\kappa \lambda \epsilon[i] \delta \eta c$ vi $\omega \pi \lambda \epsilon \hat{i} c \tau \alpha \quad \chi \alpha!\rho[\rho \epsilon] v$. тò $\pi \rho о с к и ́ v \eta \mu \alpha ́$ cov $\pi о \iota \hat{\omega} \kappa \alpha \theta^{\prime}$ €$\kappa \alpha ́ c \tau \eta \nu \dot{\eta} \mu \epsilon ́ \rho \alpha \nu \pi \alpha \rho \alpha ̀ ~ \tau \hat{\varphi} \kappa \kappa \rho i ́ \omega$
 cov aủroîc. ${ }^{\text {èv }} v \tau \epsilon \lambda \lambda \epsilon{ }^{\circ} A \rho \tau \epsilon \mu \iota \delta \omega ́ \rho o v$ ö $\tau \iota \kappa \alpha \theta \omega ̀<~ \epsilon i \rho \eta \prime к \alpha \mu \epsilon ́ \nu ~ c o \iota ~ o ̈ \tau \iota ~ \mu \eta ̀ ~$
 $\dot{\eta} \mu \epsilon ́ \rho \alpha \tau \hat{\eta} \subset$ io $\rho \tau \hat{\eta} \subset \mu \grave{\eta}$ à $\phi \hat{\eta} \subset \alpha u ̉ \tau o \hat{c} c$

oûv öть oủk aiфро́vтıкáv cal，v゙－

$\tau v \chi \in a \dot{\tau} \hat{\hat{Q}}$ ö öt $\epsilon \mathfrak{l}$ סóc $\mu \circ \iota$ тov̀c ả $\rho \tau 0-$







o’ $\rho \nu i \tau \iota a . \mu \eta े \pi \omega \lambda \eta ́ c \in \iota c$ oûv है－


Back，along fibres：
$\dot{\alpha} \pi \delta ́ \delta(o c) ~ \Theta a \eta c ı c \pi a \rho(\alpha)$＇$\Omega \rho i \omega \nu 0 c k \lambda \epsilon \iota \beta(a \nu \notin \omega c)$ ．



＇To my lady mother Thaesis Heraclides her son sends very many greetings．
＇I make obeisance for you every day to the lord god．Don＇t neglect to keep pestering them．Instruct Artemidorus＂As we told you，don＇t be negligent；if the first day of the festival ．．．．，don＇t let them off a single day＂．If you learn that they have taken no notice of you，approach the logistes and petition him＂either give me the bakers or give me a letter to Dionysodorus＂．And don＇t be negligent with regard to the oil．I greet my sister．Approach my agent（？）Morus，the assistant（？），and he will approach the logistes and he will throw them out．Look after the chickens．Don＇t sell any of them until I come．I pray that you will long fare well．＇

Back：＇Deliver to Thaesis from Horion the pastry－cook＇．
I－2 It is very surprising that on the back the letter is said to have come from a certain Horion．This and the occurrence of $v i \omega$ in line 2 might suggest that we should insert кai after $\otimes_{\alpha \gamma \epsilon \epsilon \epsilon[2}$ in line 1 and correct to＇$H$ ］$]$ par ${ }^{\prime} \in[[] \delta \eta\{c\}$ ，i．e．the letter is addressed jointly to Thaesis and Heraclides．Objections to this are formidable：there is insufficient room to insert кal in the lacuna in line 1 ，the sender of the letter would in that case not be indicated in line 2，and the letter throughout uses the singular of the addressee．

3－5 On this formula see LIX $39984-5 \mathrm{n}$ ．
 line 21．The imperatival use of the future indicative is common，but the negative is regularly ov（see e Crammatik der griechischen Papyri，II $1,212-213$ ，B．G．Mandilaras，The Verb in the Greef non－literary Papyri，$\S_{3} 396$ ），
suggesting that in our papyrus the writer may have intended the aorist subjunctive in each case；for the very
 does，however，occur in P．Cair．Masp．I 67078.8 ，BGU III 816.21 and P．Amh．II I44．24．For the expression

7 ff．The writer shows an excessive fondness for or otl，presumably ötu recitativum，cf．the note to lines $13-15$ ． Here we should perhaps interpret the first ot as introducing the actual words of the instruction as given to
Artemidorus，and the sccond ortı as a quotation of the words used in an carlier instruction to him．However Artemidorus，and the sccond ${ }^{\circ} \tau \iota$ as a quotation of the words used in an carlier instruction to him．However
that may be，it is unclear at what point the instruction ceased．It is perhaps most likely，as has been assumed
 with the words $\dot{\epsilon} \dot{\alpha} \nu \mu \dot{a} \theta \eta c$ the writer is once again addressing Thaesis．

8 àtécx：there is a hook at the end of epsilon which is almost certainly to be taken as a sigma and is not just part of epsilon．$a \pi \in \subset \chi \eta$ is most easily taken as a mistake for àmócx（cf．perhaps F．T．Gignac，Grammar II 225 ），with $\dot{\eta} \pi \rho \dot{\mu} \pi \eta$ 市 $\mu$ épa as the subject；but the writer＇s use of cases is so arbitrary that we cannot be sure of this．The problem is to decide what the verb $\begin{aligned} & \text { ane } \chi \text { a could mean in the context．It would make good sensc } \\ & \text { if the sentence were conveying the instruction that the people involved are not to be allowed even a single }\end{aligned}$ day＇s grace if they fail to fulfil their obligations（to supply bakers？）on the due day，which is the first day of


${ }^{9}$ For other instances of ioptí for Eopti see Gignac，Grammar $1,249$.
${ }^{13-15}$ Cf，the note to lines Iff．In line 13 it is clear that the actual words to be used in the petition to the logistes are being quoted，but it is very hard to see what the writer meant by inserting ${ }^{\circ} \pi t$ in line 15 ．Is
it just a mistake or are we still dealing with quotation of instructions given to Artemidorus？ 13－14 On á $\rho$ тoкótoı see E．Battaglia，＇Artos＇．Il lessico della panjifcazione nei papiri greci（ 1989 ），171－9．The writer may well be referring to the requisitioning of bakers，for which cf．，e．g．，P．Beatty Panop．x．77－79 298）．At that date the order to deal with this requisition was sent to the strategus，but similar requisitions were regularly sent via the logistes later in the fourth century：cf．B．R．Rees， $\mathcal{F F P} \boldsymbol{7}^{-8}$（1953－4）98，and J．Lallemand，L＇administration civile，ro8－9．
 the one thing we can be certain about the word is that it is not a personal name，since it occurs in the plural

 records a word $\mathfrak{\varepsilon} \psi \eta \tau \dot{\gamma}$ c meaning＇one who smelts ore＇，as well as $\mathfrak{i} \pi \in \tau \eta \eta$ ，found in Pindar and in P．Ryl．IV
 ＂broker，huckster＂is suggested for arillator，and the possibility（put forward by Skutsch，see TLL s．v．）is mentioned that the word may be connected with arra．It may well be that $\varepsilon^{\ell}$ baríc in the papyri is the same as the $\mathfrak{\varepsilon} \psi \epsilon \tau \dot{q}$ c of the Glossaries and that it describes business associates of the writers in each case，perhaps agents in financial transactions．
18 Should we correct to Mêpov or should we keep the genitive and understand the words to mean＇the rus＇？
${ }^{19} 9$ The verbs are no doubt to be understood as presents with a future sense（cf．Mandilaras，op．cit． kely，the Lon What is not clear is whether the subject of both verbs is the same or whether，as is perhaps more kly，the logistes is the subject of $\beta \dot{a} \lambda \lambda(\epsilon)$ ．
24 The unexpected statement that the letter has been sent by Horion and not by Heraclides the writer of the letter，has already been mentioned（lines 1－2 n．）．It is noteworthy that in VIII 1142 9 －10，a letter
assigned to the late third century，there is a reference to $\Omega_{\rho}$ oivv $\delta$ kd，$\beta$ avevic；there must be a very good chance
 here and that we need not consider the possibility of a reference to a крьßavápoc．For the кдд及aveúc or крıßaveúc，a baker or pastry－cook，see Battaglia，op．cit． 188.

## INDEXES

Figures in small raised type refer to fragments，small roman numerals to columns． Square brackets indicate that a word is wholly or substantially restored by conjecture or from other sources，round brackets that it is expanded from an abbreviation or a symbol．An asterisk denotes a word not recorded in LSFj or Suppl．The article and $\kappa \alpha i$
are not indexed.

## I．LITERARY TEXTS

| Homeric quotations（unless new）are not inde $\alpha^{\prime}(=\pi \rho \omega \dot{\tau} \eta) 4455$ i 2 | nor are the Herodotean lemmas in 4455. Aра́ßıoc 4458 ii 12 |
| :---: | :---: |
|  | А＇pүeiol $4452{ }^{1} 13$ |
|  | дроөробс 4455 і 8 |
| Ǎaứ 44635 | Арістархос $\mathbf{4 4 5 2}^{2} 3,{ }^{6} 5,{ }^{8} 6 \mathbf{4 4 5 7}^{1} 3$ |
| ${ }^{\text {a／}}$ \％ $4462^{1} 5$ ？ | Ариктотє市 4458 ii 22 |
| di $\delta \epsilon \lambda$ ¢ $\dagger$＇ $4460{ }^{2} 7-8$ | Apıcroфaryc $4452{ }^{1} 5$ |
| д̇éкew 4465 ii 2 | арктос 4458 і 13－14 |
|  | àрреуико́с $4454{ }^{1} 14$ |
| à $\theta \rho \in \in \mathcal{L} 44636$ | ă $\rho \chi \in ¢$ Oai $4454{ }^{1} 8$ |
|  | àcıría｜4452 ${ }^{5}$ i 11？］ |
| Alac $4460{ }^{1}[6,7]$ | Аск入ךттаб－4457 ${ }^{15}$ |
| A 4 ¢\％¢¢ $\mathbf{4 4 6 0}^{2} 5$ |  |
| airıáactau $4452{ }^{6} 2$ |  |
| גкктŋ 4465 ii 2？ |  |
| àктic 44661 |  |
|  | avidt－ $4462{ }^{4}{ }^{1}$ ． |
|  | aùróc $\mathbf{4 4 5 2}{ }^{5}$ i 14，18，${ }^{10} 2$ ？ $\mathbf{4 4 5 3}^{2} 3,{ }^{3} 6 \mathbf{4 4 5 7}^{\text {2 }}$ |
| A $2 \lambda \in \xi-4457^{3} 8$ | 64458 i 19，ii 23 |
|  | ААрообín $4454{ }^{5}$ 4？ 446314 |
| ＂Алккнос $4452{ }^{4}$ 3？ | ádро́c 4458 ii 9 |
| à $\lambda \lambda$ ¢̧̇ove［ $4452^{8}$ 9？］ |  |
| ä入入ос 4453 ${ }^{\text { }}$ 7？，［11］ | ${ }^{\text {a }}$ ¢oc 4465 ii 1？ |
| ajvá $(-) 4454{ }^{3} 3$ |  |
| Aváßacıc［4455 i 2］ |  |
| àváy $\frac{1}{} 4458$ i 11 | Вáкхך 44634 |
| àvatıṫval 4458 ii 27 | $\beta \in \lambda \tau i \omega \nu \mathbf{4 4 5 4}^{1} 10$ |
| àvécka $\theta_{\text {ev }} 4455$ ii 15 |  |
| àvǐp 44511 | $\beta \lambda$ ט́Ş $\epsilon \nu 44665$ |
| àvıâv［4451 2？，3？］ | Bóckelv $4452^{5}$ i 21 |
|  | Bov̇dectai 4458 i $4-5$ ，ii 21 |
|  | Bovícl $4454{ }^{3} 4$ |
| Avívooc $4453{ }^{2} 4$ | Butóc 44677 |
| àvórepoc 4465 ii I？ | $\beta \omega$ ¢ ${ }^{\text {cop }} \mathbf{4 4 5 2}^{5}$ i 21 |
| $\dot{\alpha} \pi \alpha \rho \tau \boldsymbol{4} 455$ ii 6 |  |
|  | raia $44522^{1} 15$ |
|  |  |
| àmó $4452^{2} 9,{ }^{11} 5$ ？［4454 $\left.{ }^{1} 8\right] \quad 4455$ i $8 \quad 4467$ 4？ | 44455 ii $7,11 \quad 4457^{2} 34458$ i［6］，16， |
| àmo八入ᄉن́vai［4467 9？］ | $\gamma \in 445134464$ 6？ |
| Aто入入и́voc $4457{ }^{3} 3,4$ | $\gamma \in \tau \nu \grave{\sim}$［4456 14？］ |


|  | єîoc $4457{ }^{3} 4$ ？ |
| :---: | :---: |
| $\Gamma$ ¢ ¢иpâol 4455 ii 16 | єикось 4455 і 4 |
| $\Gamma \hat{\text { ¢ }} \mathbf{4 4 6 0}{ }^{2} 2$ | Eivat 4452 ${ }^{2}$［4］，6，${ }^{3} 2,{ }^{5} \mathrm{i} 19,[23],{ }^{6} 1 ? 4455$ ii 2 ， |
| Yivectal $4452{ }^{\text {B }} 4$ | 7， 11 |
| $\gamma$ ขшш́скєє $4452{ }^{5}$ i 11 | єіррикко́ $\mathbf{4 4 6 0}^{2}$ 12－13 |
| $\gamma \lambda$ иук $\omega \pi$ кс $4452{ }^{1} 17$ | eic 4455 i 4 |
| уขбјп 4458 ї 25 |  |
| урандатькок［4454 ${ }^{18}$ 18？］ | $4462{ }^{4} 1$ |
|  | ér 4458 i 18 |
| （－）үра́фєєv［4452 ${ }^{2}$ 6］ | ёкастос 4450 i 3 |
| үрафŋ́ 44639 | ¢коךдос 4455 ii 13 |
| ขvข＇ $\mathbf{4 4 6 0}^{2} 7$ | ${ }_{\text {¢̈кбккос }} 4461$ ii 4 |
|  |  |
| $\delta^{\prime}(=\tau \epsilon \tau \alpha \rho \tau \eta) 4452{ }^{1} 21$ | $\hat{\epsilon} \kappa \pi \bar{\epsilon} \mu \pi \epsilon \omega \frac{4458}{}$ ii $16-17$ |
| סаін凶v 44667 | è̀ ${ }_{\text {dácucuy }} 4455$ i 8 |
|  | ¢̇ $\lambda$ ¢́¢ ${ }_{\text {ac }} 4458$ ii 15－16 |
| $\Delta$ avaoi［ 4450 ii 2？］ |  |
| Sé $445154452{ }^{1} 14,15,{ }^{2} 4,7,{ }^{5} \mathrm{i} 6,10$ a．c．， 14 ， | ＂E入入qu 4461 ii 2 |
| ${ }^{7} 23$ p．c．？ $4453{ }^{1} 4,154455$ ii $16 \mathbf{4 4 5 8}$ ii 6， | ¿ $\lambda \pi \pi \in c \theta a u$［ 4450 i 4？］ |
| 12，14，ii $11,15,18,27 \mathbf{4 4 6 2}^{+} 2$ |  |
| ¢ekviva 4463 12？ | ¢́цо́с 4463 10？ |
| $\delta$ Sevóc $4452{ }^{1} 16,{ }^{6} 1$ | ${ }_{\text {elv }} 4452\left[{ }^{1} 17,20 \mid,{ }^{2} 7,8,{ }^{5}\right.$ i 10 4455［i 2］，ii 11， |
| $\delta$ ¢vírepoc see $\beta^{\prime}$ |  |
| $\triangle \eta$ ¢б́цеса $\mathbf{4 4 5 2}^{8}{ }^{13}$ | Ėvaừ（e）¢oc $4453{ }^{1}{ }^{6} 6$ |
| $\Delta \eta$ ïrư $\eta$ 4460 ${ }^{1} 4$ | èvevíkovт 4455 i 10 |
| $\Delta \eta \mu \dot{\eta} \tau \eta \rho \mathbf{4 4 6 0}^{2} 6$ | ѐvépecıa $\mathbf{4 4 5 2}^{5} \mathrm{i}$ i 18 |
| $\Delta \eta \mu$ бкритос［4456 13？］ | Ėvepreiv $4452^{5}$ i 1 |
|  |  |
|  | év e êêtev 4458 i 11 |
| Soa（－） $\mathbf{4 4 5 7}^{\text {2 }} 6$ | $\chi_{\text {¢ }}^{6}$ ¢ival 4458 i 5 |
| 8ьакосиєiv $4452{ }^{5} \mathrm{i} 21$ | toô［ $\left.4452{ }^{2} 4\right] \quad 44646$ ？ |
|  |  |
| Sıá申wvoc 4455 i 18，［ii 10？］ |  |
| סıázutoc［ $4462^{3}$ 3？］ |  |
|  | ii 2？ 4466 6？ |
|  |  |
|  |  |
| $\Delta$ tovvciódwpoc［ $4457{ }^{2}$ 5？］ | еєтькрате̂̀ $4454{ }^{\text {＇}}$ 13？， 16 ？ |
| $\Delta$ lovícooc 4452 ${ }^{1} 19$ |  |
| סıттóc $\mathbf{4 4 5 7}{ }^{4}$ 3？ |  |
| Soкeiv $\mathbf{4 4 5 2}^{5} \mathrm{i} 15$ |  |
| סбرос 4450 i 2， 7 |  |
| Sópv $\mathbf{4 4 5 2}^{3} 6$ | ＇Eр¢фல́入ท 44633 |
| $\triangle$ оîpıc［4456 9］ | ${ }^{\text {＇Ергөтть } 4460{ }^{1} 6}$ |
| סioo［4455 i 5］and see $\beta^{\prime}$ | ${ }^{\text {E }}$ ¢ $\rho \hat{\text { ¢ }} \mathrm{C} \mathbf{4 4 5 2}{ }^{1} 11 \mathbf{4 4 6 0}^{\mathbf{2}} 11$ |
| סи́çорос［4464 3？］ |  |
| §ótjo 4464 4？ | ＂Ершс 44638 |
|  | є́рштккос 44639 <br> єîं 4464 6？ |
| ¢ $\beta$ ¢ о $-44533^{4} 6$ ？ |  |
|  | єíplcкelv $4453{ }^{1}{ }^{4}$ |
| ${ }_{\text {é }}^{\text {¢ }}$ ¢ 4461 ii 9 4463 10？ | Eưpúpaxoc［4453 ${ }^{2}$ 5］ |
| ¢i 4455 ii 11 |  |
| €i̇éval 4461 ii 3？ |  |

INDEXES

```
тоц̆ \(о \tau \eta \subset 44638\)
```



```
\(\tau \rho \alpha \chi \eta \lambda 10 \subset 4452\)
\(\tau \rho \in \overline{<} \mathbf{4 4 5 5}\) ii 12
```



```
\(\tau\) тотй 4458 i 13
тро́тос \(\mathbf{4 4 5 3}{ }^{1} 1\)
```



```
Tрй兀oc 4450 is 5
```



```
\(-\tau \omega \rho\) (452 \({ }^{5}\); 16 ff.
íypóc 4458 i \(12,19 a\)
    íठато́єにс 4467 8?
    \(\begin{array}{lll}\text { uoup } 4467 \\ \text { vióc } 4457^{2} & 8 \\ 4\end{array} \mathbf{4 4 6 0}^{2} 2,3\)
```




```
    и́тохор7нєiv [4452
```



```
    Qaval 4458 i \([8]\)
6845
    фе́реш 4458 i 10-1
    \(\phi \in \dot{\nu} y \in \boldsymbol{\omega} 4450\) i 1
    \(\phi \theta\) é \(\gamma \gamma \in \in \theta a, 4452{ }^{1} 1\)
```





```
    \(\Phi_{\text {povía }} 4455\) i 3
    \(\phi \quad\) фиáćcevv \(4452^{1}\) ?
ф \(\omega \boldsymbol{\prime}\) й 4452 \({ }^{7}\) 20?
    Xaıрๆŋншv 4452 \({ }^{1} 19\)
    Xaípıc \(4452^{1} 24\) ?
    \begin{tabular}{l}
\(\chi \in \epsilon \mu \omega \nu 4458\) \\
\(\chi \in \tau 4675\) \\
\hline
\end{tabular}
    Хєiค 44675
    \(x^{\nu} 00 \mathrm{c} 4465\) i 6 ?
    4uxpóc \(4452^{5}\) i 9
    © 4462 2 466 7?
    íc \(\mathbf{4 4 5 2}{ }^{1} 24,25,{ }^{5}\) i \(2 \quad 4457^{3} 13\)
    íceite \(\mathbf{4 4 5 2}^{2}{ }^{25}\)
Authors, 1 ,
    Anacreon fr. 1 Gent. (PMM 348) 4451
```







$(-) \pi \tau \epsilon \rho \rho[4461$ i
$\pi \dot{u} \lambda \eta[4455 \mathrm{i} 13]$

Péta $^{\text {4460 }}{ }^{2} 3,4,5,6,7$

pod 4450 i 8？

（－）сє $\kappa \nu \dot{v} v \in \epsilon \nu 4457^{3}$ 18？
сๆраі̃vev $4452^{5}$ i 18 ， 19

${ }^{2}$＊ссшт

$\Sigma \mu \epsilon ि \delta$ кс $4454^{3} 3$
co $\quad 4454^{5} 3$
coфóc 4458 ii 24


 cóv 4463 2？
cúvap $\theta_{\text {pou }} 4452^{2}$ ？？
cuvi $\theta$ 万 44567
copays $4452^{3} 5$

сфєтєрос 4450 i
сфраүс 44637
cxoviov 446710
тарфєєal $4452^{1}{ }^{1} 24$
тáфoc 4461 6？

$\begin{array}{lll}\tau \in 4450 \\ \text { in } 3 & 44533^{2} 4\end{array}$
т $\in$ í $\in \alpha 4466$ 2？
$\tau \in с с а р а к о \nu \tau a 4455$ is


ric $4453{ }^{2}$ 11？ 4461 ii 4
тル $4453^{1}{ }^{1} 7$ ？，$[10]$

${ }^{8} 64457^{1} 3$（ 4 ．тро̀с 7() a－）
Aristophanes（of Byzantium） $4452^{1} 5$ ，［25？$]$［2 82］

| $19.383,384,386 \mathbf{4 4 5 2}^{2}$ |
| :--- |
| $19.387,388 \mathbf{4 4 5 2}^{3} 5,8$ |

19．387， $3884452^{3} 5,8$
$19.392,393,3984452^{5}$ i $1,2-3,4$
19．398a？， $405,4074452^{6} 2,10,15$
19.415 f． $4452^{7}{ }^{13-15}$

Asclepiades $44577^{1} 5 ? ~$
Callimachus $4457^{3} 6$
$22.3164452^{2}{ }^{2}$ 1－2？

23.6944452 ＇ 23

Chaeris $\mathbf{4 4 5 2}{ }^{1} 2$
24.54244514
city－texts（of liad） $4452^{2}$
Democritus 4456 13？
Od．1．103／4， 113 f． 4453 2－3，16－19


Dionysius son（？）of Cha－ $4452^{1} 19$

 Heragoras $4457^{1} 7$

Praxiphancs $4457^{2} 6$
Herodotus $5.52-554455$ i－ii
Seleucus $4452^{1} 5 \quad 4457^{3} 142$
Homer $4454{ }^{1} 2$ ？
Xenophon Anabasis bk． 14455 i 2－3
ll． $1.57,5844515,6$
Zenodotus $4452^{2} 4, \Gamma^{13} 3 ?$

II．MAGIC，RELIGION AND ASTROLOGY

```
a and \omega(in Christian monogram) [4469 41]
Apwopov 4168 Fi 30
áya0óc 4468 ri 24 4476 ->8, 11, 18
a%\mp@code{с 4468 ri 13, 25, 31}
ay\rhov\pivęi\nu}\mathbf{4468}\mathrm{ v i 18, ii [4?]
àpu\pivía 4468 v if 1?, ii [4?]
А\imathүо́кєрас 4473 15
Aiyv\piт\iotacт/4468 v ii 23
A'%\varthetav\piтос 4471 12, 17, }1
```



```
a\ellưv 4468 r i 14
акатастасіа 4472 18
а́катастат\epsilon\hat{v}}4471
à\lambdaaß\etac 4468 ri 1 
à\lambda\eta0\mp@code{ơoc 4468 ri 31, [32]}
адлкннос 4468 ri [1], 25
a}\lambda\lambda\mathrm{ oc 4468 v ii ??
à\фóc}4476\downarrow
av\nu4468v if 22 (\kappaă\nu)
avaßассс }4471
<va\delta仑́\chi\epsilonc0al 4476 ->
व\nuа́нестос 4468 v i
ǎva\tau\epsilonívev, 447219
а\nuат\epsilonе\lambda\lambda\epsilonш\nu 4471 6,15
ăv\eta
a้ท\etăp 4468vi v3 447220
```




```
दे\nu\omega்\muа\о< 4476 \downarrow10
атє\epsilon\\eta\tau\varkappaко́c 4476 \downarrow11
a\pi\epsilonि\chiє\epsilon\ella< 4471 19
```




ä $\pi \tau$ т $\rho$ oc 4468 ri 20

арьөө $ө$ бс 447324,27
аристєєо́с 4468 vi i

аскєєір $\mathbf{4 4 7 6} \rightarrow 5-6$

аиси́vঠєтос $4476 \downarrow 5$

aǐtóc 4468 ri 35, 37, ii [12?], vi 2, 24, ii 4, 7447

aфavi $\mathrm{c}_{\mathrm{ce}} 4468$ ri 18
Aфpod $(\tau \eta[4468$ vi 8$] \quad 4476 \downarrow 15 \quad 4477$ passim

ахррнатьстко́с $4476 \rightarrow 14-15$

Badí̧ $\epsilon \omega$［ 4468 v ii 3 ？］
Bä̀dev 4468 vi 11
Bacì̇éc 4471 12， 18
Васількос $4476 \downarrow 14$
Bスacrávelv 4471 8－9

Boikóc 447113
Botávi 4468 ri 15, vi
Bоє́єєцц 447122




$\gamma$ длики́e 4468 vi 22
ураниатєن்с $4476 \rightarrow 5$

yovท่ 4468 vi 23

$-\delta \in 4468 \mathrm{vi} 12$
$\delta \in i \nu 47322,28$
$\delta \in i \hat{\nu} 447322,28$
$\delta \in i v a 4468 \mathrm{ri}(6$ bis $),(29 b i s), v i(17 b i s),(22), 25$ ？ ii（3 bis）， $8,19,(19)$
$\delta \in \nu$ óc 4468 vi 25
סєкavóc 4473 passim
$\delta_{\text {Év } \delta \rho o c} 4468$ ri 12， 19

$\delta_{\text {̌aккข } \nu \in i \nu} 4468$ ri 34
$\delta_{\text {lavâv }} 4468$ vi 10？
So óóval 4468 v i $22 \quad 4470$ 3－4



$\delta_{\text {亿сшиос }} 4476 \rightarrow 3$
Sокє $^{4476 \rightarrow 15}$
סośa 4469 32？ $4476 \downarrow 3$
סоилє $\lambda \in \dot{v} \theta \epsilon \rho$ еос $4476 \downarrow$ I7
SoOXoc $4476 \rightarrow 17$
S о́́coc 4468 v i 2，11， 15
Sivactal 44745

$\delta \nu<\mu \eta 446471$
$\delta_{\omega \rho \in \hat{\nu}} 4468$ vi 16
Eáv 4468 ri 23 （bis），29，vii $2044716,15,24$ Éavoó 44721

हैخ́́ 4468 ri 5,26 （bis），27，vi 14，16， 224469 ध $\theta$ eqv $4476 \rightarrow 10$

## ci 44701

iSéval 4468 ri 7,8
Eivat $\mathbf{4 4 6 8}$ ri $9,13 \quad 21$ P， $27,33 \quad 44713,6,10$
$\begin{array}{lllll}13 & 4473 & 27 & 44743 & \mathbf{4 4 7 6} \downarrow 5,6, \rightarrow\end{array}$
єic 4468 ri 29， 30 （bis），vi 124477
$\begin{array}{llll}\text { ci } \mathrm{c} & 44729 & \mathbf{4 4 7 4} 1 & \mathbf{4 4 7 6} \rightarrow 12\end{array}$


ёкастос $\mathbf{4 4 6 8}$ гі $32 \quad 4476 \rightarrow 12$
кклєєттккст 4476
еєкрүүvíval 4468 ri

é̀dáccov $\mathbf{4 4 7 6} \rightarrow 11-12$


ह̀̀ліс 446934
$\stackrel{\text { ёлитороко́с }}{ } \mathbf{4 4 7 6} \rightarrow 8$
${ }_{\text {èv }} \mathbf{4 4 6 8} \mathrm{ri} 6,8,9(b i s), 10,11,[12], 12,14($ bis $), 16$
t
$\mathbf{4} 468$ ri $6,8,9$（bis）， $10,11,[12], 12,14($ bis $), 16$
$17,21,28,34$, ii 7, vi 44469 32？ $\mathbf{4 4 7 1} 6,11$, $12,14,15,17$（bis） $44728,10 \quad 447329 \quad 4474$
3． $4476 \downarrow 4,6$

£уठє́катос 44771
Evobogoc 446932 ？



étaquêvau 4468 ri 37 ？


ยортท่ 44745
बтídec 4468 V ii 21
 ＇Елєі申 44771
${ }_{\ell}^{\ell} \pi \in \tilde{\rho} \chi \in \subset \theta a \iota 44726$
eni 4468 ri 32，ii 19，24？，vi 2447323

＇Етінахос 4469 21－22，23－24


етпитактико́с $4476 \downarrow 7$－8
èmırtềvat 4468 vi 19

èm $\pi$ фquivelv 4468 ri 17，25－26






єѐ $\mu \in \tau$ व́ßодос $4476 \rightarrow 18$
єípícкешу 447322

$\ell \chi \chi \in \omega \nu$ 4468 ri $8,21 \quad 44724 \quad 4476 \downarrow 14-15$
éac $\mathbf{4 4 6 8}$ v ii 2244727
Zeúc $\mathbf{4 4 6 8}$ ri 2，26，［35？］，vi $6 \mathbf{4 4 7 7}$ passim
乌ivu 4468 ri［18］，21， 22

$\zeta \omega \omega^{6469} 424476 \downarrow 14$
$\zeta \hat{\varphi} \circ \boldsymbol{\nu} 468$ ri 9,10
${ }_{7}^{\circ} 4468$ vi $23447117 \quad 4476 \rightarrow 11$（bis）， 14

そँ $\boldsymbol{\eta}$ loc $\mathbf{4 4 6 8}$ ri $25 \quad 447329 \quad 4477$ passim


2444743

Ө́́入a $\mu$ ос［ 4468 v ii 8－9？］

$\theta \in \alpha 4468$ ri 27
$\theta \in \hat{0} \circ 44727$
$\theta$ Єóc 4468 ri 27

өпдンко́с $\mathbf{4 4 7 6 \rightarrow 1 6}$
Өๆ入र́veciv $4476 \rightarrow$

lepóc $\mathbf{4 4 6 8}$ ri 10
ỉapóc 4468 ri 23， 27
＂va $446923 \quad 4476 \rightarrow 15$
${ }^{\text {TITmapXoc }} 44756$
гспиері́a 447454475
${ }^{1}$ IXUÚce 447319
ка $\begin{array}{rl} \\ 4 & 475 \\ 6\end{array}$
ка $\begin{aligned} & \text { év } \delta є \iota \nu\end{aligned} 4468 \mathrm{v}$ ii［13？］， 19
какбс $447113 \quad 4476 \rightarrow 8,11$

калићо $4476 \downarrow 12$
каци́́єь［4468 ri 3？］
Káveapoc 4468 ri 12，ii［19？］，［27］


катб́ 4468 ri $32 ~ 4476 \downarrow 6, \rightarrow 11,13$

$\kappa \in \hat{c} \theta a \iota 4468$ ri 33
$\kappa \lambda \in$ коỗoc［4468 vi 5？］
$\kappa \lambda$ кеvóc 4468 v ii 7 ？
$\kappa \lambda \dot{\lambda} \dot{\in} \in \boldsymbol{v} 4468 \mathrm{v}$ ii 7 ？

койсша 4477 раssim
ко́сцос $4476 \downarrow 2-3,16, \rightarrow 17$
кротько́с $\mathbf{4 4 7 6 \rightarrow 8} \downarrow$
Кротитос 4477 passim
$\kappa \tau \mathfrak{\eta v o c ~} 44719,13-14$
$\kappa$ ки́бкттос 4468 । 16

Китроүе́чєєа［4468 v ii 9－10］
Kи̃шv 4473 23， 29
$\lambda \alpha \mu \beta a ́ v e t \nu 4468$ vii 21
גантро́c $4476 \downarrow 7$

$\lambda_{\lambda \in \pi \tau o ́ v} 4477$ 9， 24


入ópoc 4468 v i 20，ii 15 ，［23］ $4476 \downarrow 7$
lov́eve 4468 v i 4
Mauác 4468 vi 7

$\mu \in ү а \lambda$ б́чихос 4476 $\downarrow 9-10$
$\mu$ е́ үас $44716,12-13$
н＇́ чистос 4468 ri 25，31，34，vi 644744
$\mu \in i \zeta \operatorname{cov} 4476 \rightarrow 12$
$\mu \in \mathbb{C l c} \mathbf{4 4 7 3} 29$


$\mu$ есоира́рпиа $4476 \downarrow 3$
$\mu \in \tau \dot{\alpha} \mathbf{4 4 7 1}$ 8， 19
${ }_{\mu \epsilon \tau \alpha \beta \dot{\alpha} \lambda \lambda \epsilon \boldsymbol{\nu}} 4476 \downarrow 11$
 $\rightarrow \overrightarrow{\text { q } \delta o c ~} 447111$
$\mu \eta \dot{\tau} \eta \rho \mathbf{4} 468$ vi 21

$\mu_{\mu \rho \rho \phi \eta}^{\mu} 4468 \mathrm{ri}$ 4， $8(b \mathrm{bis}), 9,10,11(b i s), 12,14,22$ ứpauva［4468 vi 25？］
ий́стŋс $4476 \rightarrow 9$
$\nu \epsilon c u \theta(=N \epsilon c u \tau ?) 4468$ rii 30

ov $\mu \eta v^{\prime}$ á 447328

Bé 4468 vi 4,15
оікодесто́тทс $\mathbf{4 4 7 6} \downarrow 12, \rightarrow 10,13$
ікодоинко́со́с $4476, \downarrow$
$\overbrace{\text { кос }} 4476$
Soc $[4468 \downarrow$ ii 1 ？$\rightarrow 16$

Oдข $\mu \pi о с 4468$ ri 16，vi 12
$\mu$ ррисс 4468 ri 2， 26
дио＇шс 44733
bиона 4468 r
bиoc 44714
ptov 4477 passim
öpveov 4468 ri 10
óc 4468 ri 9？，22？ 4474 3， 5
Oсьри 4468 ri 34，ii 25
öcoc $\mathbf{4 4 7 6 \rightarrow 1 0}$
ócтє́ov 4468 ri 30
万тı 446933
ว่ $447122 \quad 44722$
oû 4468 ri 33 （biv）， 35
idelc 4477 passim

－истелкы 44 2
ยैт $\boldsymbol{\omega c} 4468$ vi 14
$\phi \theta a \lambda \mu$ о́с 4468 ri 3 （bis）， 2


avinuoc 447219

rac 4468 ri 4 （bis），［5］，5， 19 （bis），［20］，20，22，23，
24，vi1 11


च̂x $\chi$ c 447274473 passim
（ $\pi \tau \epsilon \nu 4476,12$


Toєī̀ 4468 ri ［22？］，28，29，ii［14？］
$\rightarrow$ оптгко́ $4476 \rightarrow 6$
тодєт兀ко́с 4476 ， 2

отацо́с 4468 ri 10
$\pi о \tau \epsilon 4476 \rightarrow 10$
roúc 44725
траүнатєє́a 447328

роттаракєісөац 447330
toóc 4468 r ii 20 ，v ii 3 ，［5？］ 44741,5

rop 446939
avт00 4468 vi 18

Пॉєрор 44768 ri 6，28，ii［7？］
кє $\kappa \alpha \dot{\zeta} \epsilon \downarrow \nu 446$
кольо́［4468 v i 24？］
корті́oc 447311
ско́тос 4468 ri 4， 24
сиа́раүбос 4468 ri 32
$\pi \tau^{\ell} \rho \mu a \operatorname{4471} 10,14-15$

$\tau \in \iota \rho \omega ́ \delta \eta<4476 \rightarrow$
стєрєб́c $4476 \downarrow 16$
стク刘 4468 v ii 15
стра́тєәна 447119
cú 4468 ri $5,7,8$（bis），9， 10,11 （bis），12，13， 14
（bis）， 15 （ter），16，17，21，22？，24（bis），33，vi
194469 33？， 34
митлпро̂̂̀ 4474 2－3
«rvoioc 4472244732
хпматоүрафска $\mathbf{4 4 7 6 \rightarrow 1 4}$
－
rapáccevt 4472.22
Tavpoc $44716447314476 \downarrow 15$
appoc 4468 ri 14
axú $\mathbf{4 4 6 8}$ ri 6 4469 22－23（ter），24－25（ter）， 35
（terr）， 4.2 （ter）
axúc $4476 \downarrow 11$
－ 4468 v i 2144744
є $\lambda \in \hat{i} v \mathbf{4 6 8}$ vi 26 ，ii $10 \quad 4476 \rightarrow 10,13$
Eneoc 4468 vi［26］，ii 10
те́сараес 4468 r i 3

тєтои́тоис 4468 ri 9 ，

тии 4468 v ii 6？ 44719,16
тчтd́voc 4468 ri 25
Тоџ̆́түс 447313
трároc 4468 ri 9
тракаосто́́ 447325



ঠ́ $\gamma$＇́є́a（ 446941 ？）
ǐypóc［ 4468 ri 21 ］

＇Y8 $\quad$ охо́oc 4473
ü $\delta \omega \rho 447114$
víćc 4468 vi
vióc 4468 vi 7

乞пדо́ 4468 ri 20？ $4472 \quad 20 \quad 4476 \downarrow 12$

Фачрри то́лие 4468 ri 29
фa，weev 4468 ri 23


ффї́догисос $4476 \rightarrow 6$
фффб́ 446939
фoive ${ }^{4} 4488$ ri 10，
фро́vцос $\mathbf{4 4 7 6 \rightarrow 9}$
фидакти́ptov 4468 vii 20

фшласткко́с 4476
ф̂̂c 4468 ri 224469 41－43

```
\chi\alphá\rhocc 4468 v i 3, 10
\chiр\iotaт\etāंсоv 4468 v i }1
\chiар\imathтодо́тє!ра }4468\textrm{v}\mathrm{ i 
\chiарттодбтєюра 44
\chi\rho\eta\muаті\zeta\epsilonе\nu 4472 8
\chiр\eta\muаткттко́с 4476 ->14
\chiрпнатктнкос 4476
```

$\chi \rho \hat{\omega} \mu \boldsymbol{\mu} 4468$ ri 5
$\chi \omega \rho \alpha 4718,11,18$
${ }_{\omega}^{\omega} \delta \epsilon 4468 \mathrm{v}$ ii 9 ？
̀̀ $\mu$ óc 4468 vii 21

сороскотос $4476 \rightarrow 17$
$\dot{\omega} \mathbf{c} 4468$ rii 21？，vi 24 （bis），25，ii 9447322,
$\stackrel{28}{28}{ }_{\omega}^{4474} 2$

Magical words and names
Aסwrat 446940
a $\mu \alpha 4468$ v ii 24

Baßpal 4468 vi 8
Bо入хос $\boldsymbol{\theta}^{\boldsymbol{\theta}} \mathbf{4 4 6 8}$ vii 16， 18
$\delta a \mu a \lambda 4468$ v ii 18
Е入ше 446940
єрєовацаүоа 4468 у і 9
${ }_{\epsilon \rho \eta \chi \downarrow 4468 \text { vii } 17}$
laval 4468 vii 2
Iaw 4469 39－40
ноисаи 4468 v i 9
$\nu \in[4468 \mathrm{v}$ ii 2
$\nu$ taval 4468 v i 21
Пarat 4468 vii 16
pa入入 $[4468$ vii 24
Caßawt 446940
Cn 8468 v ii 16,18 （bis）
Coptic
aNaK 4468 vii 23
ANK $4468 \vee$ ii 24
MAN 4468 v ii 25 （bis）？
мнре 4469 22， 24

Vespasian

Margus Aurelius and Commodus
 Àेтокра́торєс（ycar 18） 44816



Сариатикоі Ме́үıстоь（year 19）4479 18－24 4481 13－14（om．Capнатєко）
 formula）4479 13－17

## Commodus

 21） $44829-11,43-44$

 Cариатько̀с Гєриаиько̀с Ме́үистос（уеar 22） 4482
$22-27$

Diogletian and Maximian Augusti，Constantius and Galerius Caesars

 Kaicapec（year 13， 12 and 5）4489 16－19

 4490 1－9

Galerius，Severus，Maximinus and Constantine


## IV．CONSULS


 Oùa入єpiov Ma $\dot{\xi}^{\prime} \mu i$ ivov $C_{\epsilon} \beta$ actoô tò $\beta^{\prime} 4480$ 1－3


 4491 1－3

## V．MONTHS



Мехеі́р 4479254482 28， 42

15 December 7444781821
22 January 1794479 18－25
9－11 September 194（？）4483 9－10

VI．DATES
5 August 2974489 15－19
$22($ P）July $29944901 \cdots$
9 May $307449125-29$
26 February 3114480

## VII．PERSONAL NAMES




АА $\mu \mu \omega \dot{v} v o c$ f．of Aurelia Eirene 44807

ionysius，s．of Diogenes and Isarous
－
2Avturivoc see Index III s．v．Marcus Aurelius and Commodus

Sarapous 4481 2，11，14， 19

Amo $\lambda \lambda \omega \omega v$ ala alias（？）
Amontanva alias（？）Asclatarion 448819
Арртєн反бшрос 44936
Аррин－ 448251


＇Acкえ $\eta \pi$ tá $\grave{\eta c}$ former high priest 448231
Aìp $\lambda \lambda i a$ Eippip d．of Ammonius，w．of Isidorus 4480
7， 18 （ $1 \rho \nmid \eta \eta)$
of Aurelius Silvanus，m．of Aurelius Aouthion，$w$ 5， 20
Aùpỉitoc see Index III s．v．Marcus Aurelius and Commodus
 Oxyrhynchite nome 44881
$A^{i} \rho \rho^{\prime} \lambda$ дoc＂A $\mu \mu \omega \nu$ s．of Aurelius Silvanus and Aurelia Helene 448910
Aivpìdoc ${ }^{\text {Ap }}$ Apućvioc vir perfectissimus，praefectus Aegypti 44921


 supervisor 44922
 the Prosopite 4487 1，9
A ̀̀pfitoc $\Delta \iota$ óckopoc alias Helladius， （cx）


Avp phìoc Cinkavóc s．of Besammon and Isis，h．of
Aurelia Helene，f．of Aurclius Ammon 44899 Aiेp $\bar{\lambda}$ toc $T \psi \mu \dot{\theta} \theta$ oc s．of Sarapiades 4491 A
Av̀pì̀ ooc＇Spicuv systates，s．of Theon 44893
B $\quad$ cópu $\mu \omega \boldsymbol{h}$ h．of Isis，f．of Aurelius Silvanus 44899

「a入époc see Index IV s．v．AD 311
$\Delta i \delta u \mu$ oc f．of Heraclammon 4490
$\Delta$ toyévqc，city scribe 44781,18
$\Delta$ toy ${ }^{6} \eta \mathrm{\eta}$ c h．h．of Isarous，f．of Amois alias Dionysius 44792
Aıoyévpc see Aüpṕдıoc $\Delta$ toyévc alias Eulogius
 ugusti，Constantius and Galer
 Sıovíctoc see als ¿A A $\mu$ óc alias Dionysius

Aioc f．of Aurelius Eudaemon 448019
$\Delta$ tócкорос see Aûpク̆̀toc $\Delta$ tócкорос alias Helladius
Eipív see Aúp $\lambda \lambda a$ Eippp

＇Eגєucivoo 44884


＇Epuoyevpc s．of Paulus 4485
＇Ecıñ sitologus，s．of Pusipsemis 44824
${ }^{\prime} E$ cıй secretary 448233

Eżuviरों see Index VIII（c）
 einúxc alias Psiathas，slave 44794
${ }^{\bullet} H \lambda_{\text {ce }} 44831$
＇Hoa－ 448262
＇Нракл－f．of Nech－ 4482 59？
＇Нраклаццниц donkey－driver，s．of Didymus 449015
Нракגасс 4484 2， 12



$\Theta_{a \text { âcuc } 44825744931,24}$
Oeppoivirov w．of Horion，m．of Aurelia Helene 44895
ech s．of Nicion，f．of Nicias 4478 3， 6
$\Theta \in ́ \omega \nu$ f．of Aurclius Horion 44393
Tépa६ f．of Isidorus 4480 9， 22
＇I $\rho$ भơ see A
capoìc w．of Diogenes，m．of Amois alias Dionysius 44793
（campoc s．of Fierax，h．of Aurelia Eirene 4480 8， 22 Tсіठорос 448825
${ }^{*}$＂ccu w．of Besammon，m．of Aurelius Silvanus 448910
Ka入жov́ppıoc Koyкє́ccoc vir egregius，epistrategus 4484

## Kартос 44831

Кє̇даос 44866
Kétadoc donkey－driver 44862

Koivroc Aiцù̀oc Catovpvivoc prafefectus Aegypti［4484 1］
Kómuoóoc see Index III s．v．Marcus Aurelius and
Commodus
Kшvçavitivo see Index III s．v．Galerius and Severus
，Maximinus and Constantinus Cacsars
（wveтavioo see Index III s．v．Diocletian and
Maximian Augusti，Constantius and Galerius Caesars
Aoúrioc see Index III s．v．Marcus Aurelius and Commodus
Ликарíwv cx－magistrate of Cynopolis 44925
Máyvoc see Titoc Пакто⿱䒑䶹̄toc Máyvo
Maкрivoc see Oиетой́poc Maкрivoc
III s．vv．Dioclctian and Maximian Augusti，Constantius and Galerius Caesars；Galerius and Severus Augusti，Maximinus and Constantinus Caesars；Index IV s．vv． AD 297， 311
Mas＇mivoc see Index III s．v．Galerius and Sevcrus Augusti，Maximinus and Constantinus Caesars； Más циос－lius Maximus 4482 16－17

Mapкoc see Index III s．v．Marcus Aurelius and Commodus
Movvatıavóc see $N \epsilon \mu$ écloc alias Munatianus
Mapoc 4493
18
Марос 449318
Neikcu see Index VIII（c）
Neuécioc alias Munatianus 4482 48－9
$N \epsilon \chi-$ s．of Heracl－ 4482 59？
NeX－s．of Heracl－
Nuriac s．of Theon，gd．－s．of Nicion 44783
Nuciac s．of Theon，gd．－s．of Nicion 44783
Nıкívv f．of Theon，gd．－f．of Nicias 44786
${ }^{\prime} O$ Ovồpıt s．of Teos 4488 15－16？

OBoà́époc see Index IV s．v．AD 311
OV̉ecracturóc see Indcx III s．v．Vcspasian
нєтópooc Maкрìvoc vir clarissimus，praffectus Aegypli
446 4482 14， 46

Пaìloc f．of Hermogenes 44852

Пєт $\theta$－f．of Phanupis 4482 55？
Пдои́тархос 44854

4482 2， 38
Hovcuमఫguc f．of Hesiês 4482 4－5
Hrod（）alias x 447926
Птod $\mu$ aioc f．of Asclepiades 448218
Птode $\mu$ iioc receiver of corn dues 448240
Capartádoc f．of Aurelius Timotheus 44917
Capatíwv exegetes 4486 4，7－8
Capaitiov f．of Herodes 448130
Caparov̂c Ta－alias Sarapous，w．of Apion surnamed
Pausirion 4481 3， 20

Augusti，Maximinus and Constantinus Cacsars； Index IV s．v．AD 307
Cı入ßavóc see Aüp
Cuv．．c 4481 26？
$T \epsilon \omega \mathrm{c}$ f，of POnnophris 448816

 ［15－16］， 18

Ф入áouloc Oủá̀̇cvc vìr egregius，epistrategus 44818
Xaı $\rho \not \supset \nmid \mu \omega \nu$ f．of Aurelius Besammon 44804
$\Psi_{\text {laAâc see Ezúvónc alias Psiathas }}$
＇Spicv h．of Thermouthion，f．of Aurclia Helenc 44895
§picu pastry－cook 449324
＇Soíwy see also Aupritec＇${ }^{\circ} \mathrm{p}$ ín

## VIII．GEOGRAPHICAL

VIII．GEOGRAPHICAL
（a）Countries，Nomes，Toparchies，Gities，etc．

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  <br> 644922 |  |  | 4491 |
| Bovcipítyc 4482 3， 39 |  <br> $19 \quad 44842,12$ | 4479 | 2 | 4481 2， |
| Kıvoтоגıтько́с 44923 | Просшлітท¢ 4487 ［2］， 10 |  |  |  |
| Кvvoто入ıтө̂v то́̀兀с 44925 | ＇Pwиаioc 4489 |  |  |  |

（b）Villages，etc．
Atacy－ 448250
＇Ictou Tpúфuroc 4485 I
$N_{\epsilon \kappa т е \nu-}$（ $\chi$ с́рог） 448254

$$
\begin{aligned}
& \text { Tavepetiou } 4482 \text { 52, } 61 \text { ? } \\
& \text { Tvvхขøфay } 44865
\end{aligned}
$$

（c）Miscellaneous


IX．RELIGION
$\theta$ éćc 44935
X．OFFICIAL AND MILITARY TERMS AND TITLES

архХє $\rho a \tau \in \dot{\jmath} \in \nu \quad 4482$ 31－32
Васілько̀с урадицатеи́c 44882
Bovieviケic 44915
Bovגク 44926
үраццатєи́c 448234


үранцатєи́c see also ßacìıкòc $\gamma$ ．
$\gamma \nu(\mu v a c a \rho \chi$－） 44914

## баасๆио́татос 4490 13－14 $4491 \quad 12 \quad 4492$ ：




іो $\eta \epsilon \mu \dot{\mu} \nu 44811,8,16,18 \quad 4482$ 15－16，47－48 4490 1444923
кра́тıстос $\mathbf{4 4 8 1}[8], 12,174484[11] \quad 44889$
лантро́татос $44811,16,18448215,47$ лоуистйс 4493 12， 19

на́үитрос тйс трьоиáтүс 44911213
тракторєіа 4482 （ $50,52,54,60,61,63,65$ ） рактшр сттика́r 4484 4， 15

九то入oyía 448236
ıtodóyoc 4482 5， 35

XI．PROFESSIONS，TRADES，AND OCCUPATIONS
à Øŋpâc 448022
артоко́тос 4493 13－14
＊\＆\＆

$$
\chi \in \varphi \rho \iota \subset \tau \dot{c} \mathbf{4 4 8 0} 9 \text {, (22) } \quad \mathbf{4 4 9 3} 18
$$

к入ıßaveúc 449324

## XII．MEASURES

a）Weights and Measures
apoupa 4488 ［（17，18）］，（21，22， 24
a $\rho т \alpha ́ \beta \eta ~ 4482 ~ 18,(20,53,55,56,57,58,59)$
（b）Money
$\delta \rho a \chi \mu \mu^{\prime} 4490$ 16，（18）

## XIII．TAXES

$\hat{\epsilon} \pi \iota \kappa \epsilon \phi \dot{\lambda} \lambda a \iota v 448014 \quad 449010$
XIV．GENERAL INDEX OF WORDS

| ăßpoxot 4488 11，（17，22，24，26） |  |  |
| :---: | :---: | :---: |
| ăyoca 448015 |  |  |
|  |  | àveéval 449211 |
| ＊idqpac see Index XI |  |  |
| aipeiv 4492 6？ |  | duTi¢papov 4481 ［15］ |
| ákódovtoc 449012 |  |  |
|  |  | á̧toov 447810444799448912 |
| ${ }_{\text {a }}^{\text {a }}$ a 44925 5， 7 |  | ȧпéx $\chi \in \nu 44938$ |
|  |  |  |
|  |  | $44828,4244842,12448817,2144895$, |
| ${ }_{4}{ }^{\text {a }} 44925$ |  | 10， $11 \quad 44917$ |
|  | 44897 | аттоүра́феш 4478 6－7 448810 |

## 

－
(b) MONEY

なа

```
cuvayopactıко́с 4482 12,45
```

```
\alphǎva\pi\epsilon\mu\pi\epsilon\epsilon\nu 4481 15
\2M\rho4480 8 4481 5,6 448241 44899
avléval 4492 I1
av\tauivpa\phiov 4481 [15]
аv\taui\deltaiк<a 44819}
à\xitoôv4478 10
a\pi氏́\chi\inLv 44938
    4482 8, 42 4484 2, 12 4488 17, 21 4489 5
аттоура́ф\epsilonш 4478 6-7 4488 10
```



ітотаралэ̆иттŋс 448240 4I
тратךүо́c $4481{ }^{10} \mathbf{4 4 8 2}$ 2， 394487 ［2？］，［9？］
систáтŋс $44805 \quad 44893$
raцєîov 4484 ［8？］

imateia 448017 see also Index IV
хшаатєтєіктри 44922

|  | סıaүpádėı 4490910 |
| :---: | :---: |
| àто入еітеє̀ 449212 | סькко́сто 448219 |
| атосте́入儿єь 449111 | סıадеіттел 44924 |
| а̇тоф＇́pєt 44818 | סиacךиóтatoc see Index X |
| àpyúptoy 449016 | סıơovaı 4493 13， 14 |
| äpovpa see Index $\mathrm{XII}(a)$ | $\delta_{\iota \epsilon \xi ¢ ¢ ¢ \chi \chi \epsilon \theta a \iota} 44929$ |
|  |  |
| адртоко́тос see Index XI | S＜cutuхєì 448111448312 |
|  | Sıкаьоосс́a 44815 5，［22］ |
| áp $\mathrm{\chi}$ ¢́¢ 0 ooc see Index X | סiкatov 44896 |
| ápXıepatev́ev see Index X | $\delta$ ¢ $\mu$ orpov 4488 （22） |
| àcrá̧́cetal 449316 |  |
|  | $\delta i \pi \lambda o u ̂ c ~ 448116$ |
| av่า永 44818 | 8ıccóc 448221 |
| aủróc（same） 448808448194484744888 | $\delta_{i \times \sim} 449212$ |
| 4489 6， $10 \quad \mathbf{4 4 9 1} 8$ 8，9， 1444925 | סокеiv̀ 448110 |
| aủróc（he，she，it） 4479104480194481 3，4，8， | סov̀oc 44794 |
| $10,20,[21] ~ 448912,21449120 \quad 44936,9$, |  |
| 13，20， 22 | Sưvactar 448111 |
| à $\phi \hat{\eta} \lambda \iota \xi \underline{488913}$ | 8ưo 449111 |
| áduéval 44939 |  |
|  |  |
|  | teáv $44815,10 \quad 44938,10$ |
| вӓ入入єє 449319 | ＂вбомос 447818 |
| Васѝıкóc see Index X | ＇̇̇үvâctau 4487 ［6］， 13 |
| $\beta_{<} \beta \lambda \lambda i \delta i o v ~ 44819,12,15$ |  |
| $\beta_{6} \beta \lambda i o v 448014($ bis $) 48814,22$ |  |
| Bloc 448011 | $144492744931,13,14,17,18$ see also |
| Boúdectau 4489 6－7 | s．v．$\hat{\eta} \mu \mathrm{\epsilon} \hat{\mathrm{i}}$（ |
| Boudevtíc see Index X | ＊өиос 448915 |
| $\beta$ ou入t ${ }^{\text {g see }}$ Index X | el 449122449313,14 |
|  | eíếval 4480204489 ［22］ |
| $\gamma$ áp 44815,6 |  |
| रérqua 4482 8， 43 | 448911449123 |
| $\gamma \boldsymbol{4} 4885$ | eic 4479104488 ［15？］，19，23， 25 |
| $\gamma$ ¢үvectaı 4480 9－10 4489 8（bis） 449210 | єic¢¢¢́¢ $¢ \nu$ 4482 13－14 |
| $\gamma$ ¢ivectal $448220 \quad 4483$ 8－9 $\quad \mathbf{4 4 9 0}$（18） |  |
| урб́цца 4480204489 ［22］ 449314 | 21－22 |
| $\gamma \rho \alpha \mu \mu a \tau e v$ će see Index X | ¢́кастос 4493 3－4 |
|  | е̇күра́феєv 4481 14－15 |
| урафŋ 448913 | ¢̇кк⿺î 4483 g （bis） |
| y $\mu$ uaciapxoc see Index X | ¢ккоус（wс 4487 ［5，12］ |
| $\gamma{ }^{\text {rupácoov see Index VIII }}(\mathrm{c})$ | è＜＜форє̂̀ 44817 |
| ขuvŋ 4481 2，5，［19］ | é入八аоо» 449316 |
|  | èdáccucic 448021 |
| ס¢ $448411 \quad 449122449212$ | édaттoì 4480 12－13 |
| Seíçau 448110 |  |
| סєбогтшс 44918 |  |
| Sectótךc see Index IV s．v．AD 311 |  |
| $\delta ¢ \emptyset \in \nu 44913$ |  |
| бпибссос 44854449211 ？ | 21448311448991444924 |
| סıád 4480134481394882 （17），48？ 4488 ［4？］ | Evap才oc 4486 4， $8 \quad 44915$ |
| $448913 \mathbf{4 9 2}$ 8，11，12， 13 |  |
| סıáyvockc 44819， 10 | Ėทçáva، 4489 4， 11449011 |

210
INDEXES

еуєакаıбєєкатос 448113
vox入ềv 449356
охос 449123
èvгo入ıкóv $4483{ }_{3} 4$


| $7449312-13$ |
| :--- |

दакócoı 449017
$\xi \eta \eta \eta \eta \eta \dot{c}$ see Index X

oคти́ 4493

Tapxoc see Index X
$\pi \epsilon 14484644927$


i $44787,124479644814(b i s), 8,[21], 22$
 11－12 4489 12， 20
тикалєєг $44812,14,19$
$\pi$ tкє $\phi$ dàacoov see Index XIII
$\pi i \pi \epsilon \delta \circ \mathrm{C} 448116$
$\pi i<\kappa є \psi<4488$ 9－10
Ėıcтрáтŋyoc see Index X

ह̇тффаре́çaroc see Indcx III s．vv．Diocletian and Maximian，Constantius and Galerius；Galerius and Scverus，Maximinus and Constantine；Indcx
IV s．vv，AD 297,307 IV s．vv．AD 297， 307
охєc $\theta a \sim 4493$

（Е́тос） $4478 \quad 18 \quad 4479 \quad 18 \quad 44816,12,17 \quad 44828$ ， $22,42,43,[68 ?] 4484544894,11,15$ ， $\begin{array}{cc}17 & 4491 \quad 25 \\ 8 \in \rho \gamma \epsilon \tau \epsilon \nu \sim\end{array}$
$\epsilon \ell \in \rho \gamma \in \tau \epsilon \bar{\nu} 448111$
$\varepsilon i \tau \rho \in \pi i \zeta \in \epsilon \nu 44929$
$\varepsilon \ddot{u} \in \in \theta a l 449323$
$\chi \in \in \nu 447927 \quad 4488$

ย $\omega \subset 44925$
f $\gamma$ єuovía see Index X
 2， 64491 1，16， 25
万иє́fa 4492 ［4？］ 4493 4，9， 10
$\overbrace{\mu \in ́ \tau \epsilon \rho о с ~} 44808$
万инсис（ 4482 53，56？） 448818
－ єioc 449123
$\theta_{\theta \in \dot{\prime}}$ see Index IX

8七oc 448111

iva 448111 ，

cäィcradual 44927
ка $\theta \dot{\omega} \dot{c} 44937$


катафєи́ソ $\epsilon \bar{\nu} 4481$ 4－5，［22］

 $\begin{array}{llll}7 & 4490 & 12-13 & 44927\end{array}$
ivo voó 449124
к入へ̂poc 4488 15（？）， 23 see also Index VIII $(c)$
к之之ßaveúc see Index XI

$4 \dot{\sim} \rho \circ$ oc（lord，lady） $44812,[4], 5,8,19,[22] 4492$ ［3？］ 4493 1， 4 see also Index III，IV

ацл $\rho$ óc $\mathbf{4 4 8 0} 5(b i s), 1044893(b i s) \quad 44915(b i s)$ see also Indcx X
入oycctíc see Index $X$
入óyoc 44848
Láycctpoc see Index X
$\mu \hat{\lambda} \lambda \lambda^{\circ} \mathbf{\nu} 4815$

$\mu$＇́yac 44835
$\mu \in \rho о с 4488$ 18， 22
иєтく́d 448174492 4， 11
иета入入а́cceш 4480 11 4481644898
$\mu \in \tau \tilde{e ́ p} \chi \in \subset$ Oal $44919,13-14$
иеสтоХос 4482 Ј
иєтрєiv 4482 6，

15， 21
$\mu \hat{\gamma} \delta \in 449121-22$
$\mu \eta \delta \in i c 449310$

$\mu$ भín 4479244895,944931
ницийскеш 44833


| гоиос 4481 10 4487 4－5， 12 | троурафєєл 44781617 |
| :---: | :---: |
| vócoc 4480 Il |  |
| ขо́ктшр 44924 |  |
|  |  |
| \％̌¢ 448014 4487 4， 12 | троски́vŋрия 44933 |
| －¢ev 448414 | тротөө́val 448116 |
| ${ }_{\text {oikoc }} \mathbf{4 8 1 5 1 5} 5$ | трй́auc see Index X |
| биәŋлкос 448914 | прйтос 448974493 |
|  | тvpóc 4482 18，（20，53，55，56，57，58，59） |
| \％$\mu$ оос 447813 13 447911 | $\pi \omega \lambda$ ¢̇v 449321 |
|  |  |
|  |  |
|  | с $7 \mu a\left(v \in \epsilon \frac{1 \nu}{} 44785\right.$ <br> сๆиєюо0у 447818448233 |
|  | сıтько́с 4484 4，［15］ |
| ŏvoc 449111 | citodoyía see Indcx X |
| ${ }_{\text {опт }}{ }^{\text {c }} 448110$ | cıro入óyoc see Index X |
| ӧркос 4489 15， $20 \quad 449123$ | стотаралйнтrทс see Index X |
| opvítıov 449321 | скеөос 4481 4， 21 |
| $\left.{ }_{\text {ơc }} \mathbf{4 4 8 1 4 ,} 421\right] 449210$ | скои́т入ıоу 44834 |
| ӧсос 44815 | cóc 449212 |
| ${ }_{\text {or } \tau \text { c }} 4481544937$（bis），11，13， 15 | стаөно́с 44897 |
| où 4481784991844924,13449311 | cтéppov 44924 |
| oûv $448194484644935,11,21$ | стод 4481 ［16］ |
|  | cтparךүóc see Index X |
|  | $\begin{aligned} & \text { cúr } 4480 \quad 13 \quad 44814,5,10,11,[22] \quad 44837, \\ & 12 \quad 4489 \\ & 13 \\ & 4493 \\ & 3,7,11,22 \end{aligned}$ |
| таиоотойর 44816 | cuddaußavelv 448111 |
| пã̉ac $4479744812, ~[19] ~$ |  |
|  | cуи $_{\text {cicuece }} 4481$ 3， 20 |
| тара́ $44783447914480744812,3,19$, | cóv 448814 |
|  |  |
| 54493 4， 24 | соveлє＇¢үен 44927 |
| тарабıбобval 44927 |  |
| $\pi$ прetival 448110 | сиขєхйс 44928 |
| $\pi$ nâc 4481744926 | cuvráccecv 4481.12 |
| татท̆ค 4478544885 | cuvaveictal 448246 |
| $\pi \epsilon ¢ \hat{p} ¢$ ¢ $\theta$ uı 44818 | си́стасте 449110 |
| $\pi \epsilon \in \mu \pi \epsilon \epsilon \frac{4485}{2} \mathbf{4 4 8 6 2 , 6}$ | cuccárlc see Index X |
| $\pi \in \rho 64483 \quad 34485444910,23 \quad 449316$ <br>  |  |
| $\pi \in \rho$ ¢ктâcfal 44815 | $\tau \alpha \mu$ ¢̇ov see Index X |
| $\pi \lambda$ еістос 4483244932 | тब́guc 447911448914 |
|  | тácceel 448912 |
| тоиย̂̀ 4481 4，［22］4491 21， 2244933 | тахúrךc 449211 |
| $\pi$ т́גıc 448084489 6， 10 4491 8， 9 see also Index | $\tau \epsilon 4481$ 4， 214492 4， 6 |
|  | тékvò 44896 |
|  | тéरetoc 44795 |
| тo入ức 4481 3，5，7，8， 9449211449323 | $\tau \epsilon \lambda \in u \tau$ ầ 44788 8，11－12 44797 |
| точпрía 448414 | T¢́र听4480 9 4491 14， 20 |
| тракторєі́a see Index X | тчнй́атос 4483 1－2 |
| $\pi \rho \dot{\alpha} \tau \omega \rho$ see Index X | т＜＜ 4481 2，3，7，［19，20］ |
| трıovâta see Index X | тои 449213 |

## NDEXES

тoive 44927

тойкоута 448219
тvүХд́vecu 4481104492
тvхク 447917449120


Urazeía $4480 \quad 17$ see also Index IV
imareia 448017 see also Index IV s．v．
ímaroc see Index IV s．vv．AD 297， 307
i $\pi \epsilon \epsilon \rho 4480 \quad 12,194482(45,49,61,63) 4489$
449010

13449013
i．jпоүра́фєtข 448115
іло́ццๆиа 4479 8－9 448912
iтотácceiv 4484 6？
iñoт $\mu \hat{a} \nu 44801$
＋

філос $44837,11-12$

фроутстйс 448253
$\chi$ аípev 448324493
$\chi \in \varphi \varphi<\tau \bar{\prime} \subset$ see Index XI
хй七оь 449017

хро́voc $\mathbf{4 4 8 1} 3,7,20 \quad 4493$（23）
$\chi$ рис́ion $44814,[21]$
$\chi \hat{\mu} \mu a$
44923,12
$\chi \omega \mu a \tau \epsilon \pi \epsilon і к \tau \eta \subset$ see Index $X$
$\chi$ $\chi \omega$ piov 448254
$\psi \epsilon \delta ́ \delta \epsilon \theta 0 u 447918448915$
üveícoal 4481 3，7，［20］
む̈pa $^{\text {un }} 443(8,10)$ ，
$\begin{array}{llllllllll}\dot{\omega} \subset & \mathbf{4 4 7 8} & 12 & \mathbf{4 4 7 9} & 11 & \mathbf{4 4 8 8} 6 & \mathbf{4 4 8 9} & 14,21 & \mathbf{4 4 9 1}\end{array}$
10， 13

XV．CORRECTIONS TO PUBLISHED TEXTS

BGU XI 20614481 introd．， $14-15 \mathrm{n}$ ．
P．Mich．III 204．4－6 4493 17－18 n．
VIII 1142 9－10 449324 n ．
X $129915 \mathrm{ff}, 4493 \mathrm{n}$
XLI 29894895 n.

XLIV 31924491
XLIX 35104478 introd．
SB XVI 12678．35－7 448112 n ．
SB XVIII 13244．16， 2144795







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Plate VIII













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